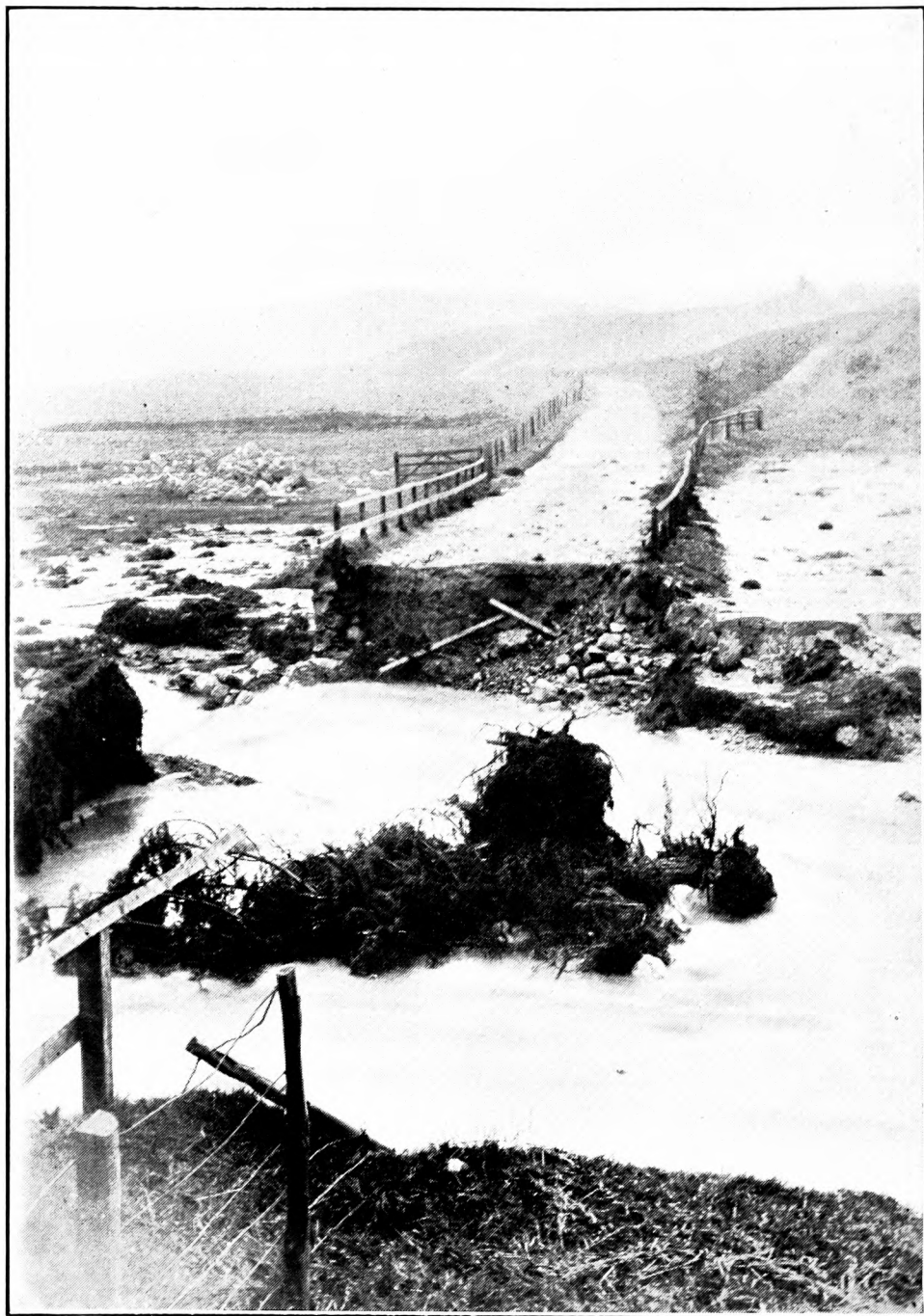


BRITISH RAINFALL,  
1923.





DAMAGE CAUSED BY THE CARRBRIDGE STORM, JULY 8th, 1923.



*A. Ledingham, Photographer.*

The Break in the Road at the Battengorm Burn.



METEOROLOGICAL OFFICE—AIR MINISTRY.

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# BRITISH RAINFALL, 1923.

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THE SIXTY-THIRD ANNUAL VOLUME OF THE  
BRITISH RAINFALL ORGANIZATION.

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REPORT ON  
THE DISTRIBUTION OF RAIN  
IN SPACE AND TIME OVER  
THE BRITISH ISLES  
DURING THE YEAR

1923

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

---

*WITH MAPS AND ILLUSTRATIONS.*

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ISSUED BY THE AUTHORITY OF THE METEOROLOGICAL COMMITTEE.

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1924.

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ERRATUM IN " BRITISH RAINFALL, 1918-1922."

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p. 67, Glenleven (Blackwater Dam), *for* 2·29% *read* 2·9%.

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## INTRODUCTION.

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Like its predecessors, the volume of *British Rainfall* for 1923 is arranged in four parts. Part I. is devoted to matters connected with organization of rainfall observations and the arrangements for their discussion and utilization. Part II. deals with various aspects of the rainfall of the year 1923. In Part III. the total for the year of the rainfall at each observing station is set out. Part IV. is reserved for articles of a general character, in this case it contains a statistical paper by Mr. J. Glasspoole.

Readers will notice that there has been some re-arrangement of Part II. This part opens now with a general account of the weather of the year. The section on evaporation and percolation is placed at the end of the part.

The information which is summarized in these pages is based on the careful observations made day by day throughout the year by observers in all parts of the British Isles. For most of these observers the work is purely voluntary, and the way in which they place their records at the service of the public should be generally appreciated. Thanks are also due to the officials of the public bodies whose willing co-operation provides the Meteorological Office with some of the most valuable statistics.

Under an arrangement made in 1920, observers in Scotland send their returns to the Meteorological Office, Edinburgh, and the examination of such returns is carried out by the staff there before the figures are transmitted to London. The returns for English and Irish stations are handled by the staff of the British Rainfall Organization in the London Office.

The work has been carried out under the direction of Mr. F. J. W. Whipple, M.A., F.Inst.P., the Superintendent of the British Rainfall Organization.

G. C. SIMPSON,  
*Director.*

Meteorological Office,  
27th November, 1924.



BRITISH RAINFALL, 1923

PART I

THE WORK  
OF THE  
BRITISH RAINFALL  
ORGANIZATION

# BRITISH RAINFALL, 1923.

## PART I.

---

### THE WORK OF THE BRITISH RAINFALL ORGANIZATION.

---

#### THE STAFF OF OBSERVERS.

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The observations which form the basis of the following account of the rainfall of the British Isles in the year 1923 were made in part by voluntary observers, in part by the officials of various public bodies. The total number of observers cannot be stated with precision, and it has been customary to take as an index of observing activity the number of entries in the table of *British Rainfall* showing the total rainfall for the year. Such a statement is set out below. In making comparisons between the number of entries for 1923 and for previous years, it is to be noted that to economise space certain records have been eliminated. At some places there are two gauges alongside each other, one read daily, the other monthly. Comparison between the readings provides an excellent check, but if the check proves satisfactory and the accuracy of the daily figures is confirmed, there is nothing to be gained by publishing the annual totals for both gauges. The rule has been adopted that unless there is some special interest in the comparative readings, the check gauge shall not appear in the General Table. The most conspicuous example of the working of this rule is in the case of the Edinburgh Waterworks; records from the 14 check gauges there have not been printed in the present volume. For similar reasons the publication of annual totals derived from the records of autographic gauges has been given up when these records are duplicated by the readings of ordinary gauges. Experience shows that whilst autographic gauges are of great value for showing when rain fell and how fast, they are not always to be trusted to give the total fall with the same accuracy as the ordinary gauge.

Another cause for a reduction in the number of stations in the General Table has been the elimination of the records from certain gauges with unsatisfactory exposure. In the County of London alone the number of records rejected on this account after inspection of the gauges was no less than 14. It has been established, however, that a more reliable picture of the distribution of rain over London is obtained from the remaining records. The badly exposed gauges



are in most cases being replaced by others in better positions so that the records will appear again in future years. In connection with this question of exposure it may be mentioned that in some cases it has been thought better to keep a record in the General Table and to print a footnote to indicate that the exposure was known to be unsatisfactory (the usual fault is the absence of adequate shelter from strong wind).

In all, about 150 records, though complete, have not been included in *British Rainfall, 1923*. About 70 of these records are from check gauges, 15 from recording gauges and 15 from gauges placed on roofs.

Amongst the records which have lapsed, one group of 45 is of some historical interest. The gauges referred to were at the railway stations of the old Manchester, Sheffield and Lincolnshire Railway Company; it will be remembered that this Company developed into the Great Central Railway. On the recent incorporation of this Railway in the London and North Eastern the records were terminated. Three of the records, those at Fairfield, near Manchester, at Combs Reservoir, near Buxton, and at Chapel-en-le-Frith, had been continuous from 1840. Even the shortest of the series go back to 1867. Unfortunately, the type of gauge, with a shallow funnel 3 ft. 6 in. above the ground, is one which cannot be regarded as satisfactory by modern standards. The amounts recorded by such gauges are generally too little.

There are a certain number of losses which seriously affect the adequacy of the record of rainfall over the British Isles. Amongst these may be mentioned: Two Bridges on Dartmoor; Mickleton near Middleton in Yorkshire; Allans Green, near Bardon Mill in Northumberland; Quinish, in the Isle of Mull; Inverpolly Lodge, to the north-west of Ross-shire; Fetlar Manse in Shetland.

Apart from three gauges at Lighthouses (where it is almost impossible to obtain a satisfactory exposure) the only records for the Shetland Islands now come from Lerwick and from Baltasound, about 50 miles farther north.

Amongst the new records which are likely to prove of special value, the following stand out: Okehampton and Jacobstowe in North Devon; Simonsbath in Somerset, on Exmoor, 1,080 feet above sea level (the records for this station lapsed for two years); four new gauges to the north of Kinder Scout in Derbyshire giving some of the largest readings from this area; Rawthey Gill Head, near Baugh Fell to the east of Sedbergh, 2,075 feet above sea level; eight new gauges erected by the Oldham Corporation on the gathering grounds, partly in Lancashire and partly in Yorkshire.

In Scotland mention may be made of new stations on Ben More in Mull, giving the largest reading for the year in Scotland; at Cor-naigmore on Tiree, one of the most westerly stations in Scotland; on

Loch Treig in Southern Inverness-shire, at Skeabost in Skye, at Ullapool and Achnashellach in Ross-shire, at Lairg and Helmsdale in Sutherlandshire and at Altnabreac in Caithness.

That the gains in Ireland balance the losses, credit is due to the activities of the Irish Rainfall Association. On the whole the gains seem to be rather better distributed than the losses.

*British Rainfall, 1923, compared with 1922.*

*Number of Records Published.*

			Gain.		Loss.	Difference.	Per cent. change in year.
England	..	..	218	..	413	.. -195	.. -5·7
Wales, etc.	..	..	17	..	45	.. -28	.. -6·3
Scotland	..	..	42	..	73	.. -31	.. -4·1
Ireland	..	..	21	..	29	.. -8	.. -3·1
British Isles	..	..	<u>298</u>	..	<u>560</u>	.. <u>-262</u>	.. <u>-5·4</u>

For assistance in the collection of the rainfall returns for the year we are especially indebted to officials of various local organizations, among whom may be mentioned:—Mr. F. Campbell-Bayard, of the Croydon Natural History and Scientific Society; Mr. C. P. Sinclair, of the Hertfordshire Natural History Society and Field Club; Major C. A. Markham, of the Northamptonshire Rainfall Association; Mr. A. W. Preston, of the Norfolk Rainfall Organisation; Miss Young, Librarian at the Barnstaple Athenæum; The Rev. H. A. Boys, of the Mid-Wessex Rainfall Association; Mr. A. P. Jenkin, of the Cornwall Rainfall Association; and Mr. E. W. M. Murphy, of the Irish Rainfall Association.

*Number of Rainfall Records Published in the Volumes of  
"British Rainfall" for the undermentioned Years.*

Years.	England.	Wales, etc.	Scotland.	Ireland.	British Isles.	Change from previous year.	No. of Stations per 100 sq. mi.
1861	.. 333	.. 9	.. 109	.. 20	.. 471	.. + 47	.. 0·4
1871	.. 1038	.. 88	.. 311	.. 67	.. 1504	.. + 5	.. 1·2
1881	.. 1548	.. 131	.. 313	.. 153	.. 2145	.. + 41	.. 1·8
1891	.. 2091	.. 168	.. 359	.. 181	.. 2799	.. + 23	.. 2·3
1901	.. 2616	.. 253	.. 442	.. 195	.. 3506	.. + 13	.. 2·9
1911	.. 3705	.. 397	.. 701	.. 271	.. 5074	.. + 198	.. 4·2
1914	.. 3962	.. 450	.. 753	.. 288	.. 5453	.. + 83	.. 4·5
1919	.. 3419	.. 436	.. 766	.. 277	.. 4898	.. -101	.. 4·1
1920	.. 3460	.. 453	.. 758	.. 281	.. 4952	.. + 54	.. 4·1
1921	.. 3577	.. 446	.. 784	.. 271	.. 5078	.. + 126	.. 4·2
1922	.. 3601	.. 470	.. 785	.. 270	.. 5126	.. + 48	.. 4·2
1923	.. 3406	.. 442	.. 754	.. 262	.. 4864	.. -262	.. 4·0
Difference from 1922:	{ -195 .. -28 .. -31 .. -8 .. -262 .. —						.. -0·22

County.	Records in 1922.	Records Lost.	Records Gained.	Records in 1923.	Records per 100 sq. mi. of area.	County.	Records in 1922.	Records Lost.	Records Gained.	Records in 1923.	Records per 100 sq. mi. of area.
<b>ENGLAND.</b>						<b>SCOTLAND.</b>					
LONDON .. ..	76	20	2	58	50	WIGTOWN .. ..	10	0	1	11	2
SURREY .. ..	195	29	23	189	26	KIRKCUDBRIGHT ..	21	1	1	21	2
KENT .. ..	165	17	7	155	10	DUMFRIES .. ..	20	0	0	20	2
SUSSEX .. ..	158	15	6	149	10	ROXBURGH .. ..	16	0	0	16	2
HAMPSHIRE ..	173	22	14	165	10	SELKIRK .. ..	7	0	0	7	3
BERKSHIRE ..	50	6	7	51	7	PEEBLES .. ..	16	3	0	13	4
MIDDLESEX ..	66	8	5	63	27	BERWICK .. ..	12	0	0	12	3
HERTFORDSHIRE..	78	7	7	78	12	HADDINGTON ..	9	0	1	10	4
BUCKINGHAMSHIRE	43	8	6	41	6	MIDLOTHIAN ..	53	17	0	36	10
OXFORDSHIRE ..	53	10	0	43	6	LINLITHGOW ..	18	1	1	18	15
NORTHAMPTON ..	69	11	2	60	6	LANARK .. ..	39	1	0	38	4
HUNTINGDONSHIRE	9	0	2	11	3	AYR .. ..	33	1	1	33	3
BEDFORDSHIRE ..	24	1	0	23	5	RENFREW .. ..	43	0	0	43	18
CAMBRIDGESHIRE	43	2	1	42	5	DUMBARTON ..	24	1	1	24	9
ESSEX .. ..	102	12	9	99	6	STIRLING .. ..	36	4	1	33	7
SUFFOLK .. ..	56	5	3	54	4	BUTE .. ..	8	1	0	7	3
NORFOLK .. ..	82	7	6	81	4	ARGYLL .. ..	64	4	7	67	2
WILTSHIRE .. ..	51	6	5	50	4	CLACKMANNAN ..	5	0	4	9	16
DORSETSHIRE ..	71	6	3	68	7	KINROSS .. ..	4	0	0	4	5
SOUTH DEVON ..	152	15	10	147	9	FIFE .. ..	33	3	2	32	6
NORTH DEVON ..	43	2	5	46	5	PERTH .. ..	81	14	2	69	3
CORNWALL .. ..	74	9	4	69	5	FORFAR .. ..	41	7	2	36	4
SOMERSETSHIRE..	143	12	17	148	9	KINCARDINE ..	7	1	2	8	2
GLOUCESTERSHIRE	95	9	9	95	8	ABERDEEN ..	39	1	1	39	2
HEREFORDSHIRE..	43	6	2	39	5	BANFF .. ..	11	2	1	10	1.6
SHROPSHIRE ..	53	3	4	54	4	MORAY or ELGIN..	10	2	1	9	1.9
STAFFORDSHIRE ..	52	1	2	53	5	NAIRN .. ..	5	0	0	5	3.0
WORCESTERSHIRE	56	2	4	58	8	INVERNESS ..	64	2	5	67	1.6
WARWICKSHIRE ..	44	7	2	39	4	ROSS & CROMARTY	21	2	4	23	0.7
LEICESTERSHIRE ..	36	4	2	34	4	SUTHERLAND ..	8	2	2	8	0.4
RUTLANDSHIRE ..	2	0	0	2	1.3	CAITHNESS ..	8	0	1	9	1.3
LINCOLNSHIRE ..	70	10	2	62	2	ORKNEY .. ..	13	1	0	12	3.0
NOTTINGHAMSHIRE	62	12	2	52	6	SHETLAND .. ..	6	2	1	5	0.9
DERBYSHIRE ..	82	9	9	82	8	<b>IRELAND.</b>					
CHESHIRE .. ..	81	16	3	68	7	CORK .. ..	29	5	0	24	0.8
SOUTH LANCs ..	114	18	4	100	15	KERRY .. ..	11	2	0	9	0.5
CENTRAL LANCs ..	83	9	3	77	14	WATERFORD ..	9	2	0	7	1.0
NORTH LANCs ..	63	10	3	56	9	TIPPERARY ..	18	1	0	17	1.0
YORKSHIRE, W.R.	333	34	10	309	11	LIMERICK .. ..	13	2	0	11	1.0
YORKSHIRE, E.R.	30	2	1	29	2	CLARE .. ..	5	0	1	6	0.5
YORKSHIRE, N.R.	102	7	4	99	5	WEXFORD .. ..	8	1	0	7	0.8
DURHAM .. ..	45	5	2	42	4	KILKENNY .. ..	7	1	0	6	0.8
NORTHUMBRLAND	46	7	4	43	2	WICKLOW .. ..	13	0	0	13	1.7
CUMBERLAND ..	64	3	0	61	4	CARLOW .. ..	5	1	0	4	1.0
WESTMORLAND ..	69	9	1	61	8	QUEEN'S COUNTY	4	0	2	6	0.9
<b>MONMOUTH, WALES, ETC.</b>						KING'S COUNTY..	6	0	3	9	1.2
MONMOUTH .. ..	35	2	2	35	7	KILDARE .. ..	4	2	0	2	0.3
GLAMORGAN ..	62	8	2	56	7	DUBLIN .. ..	30	7	5	28	8.0
CARMARTHEN ..	18	3	0	15	2	MEATH .. ..	7	0	1	8	0.9
PEMBROKE .. ..	16	1	2	17	3	WESTMEATH ..	9	0	0	9	1.3
CARDIGAN .. ..	20	2	1	19	3	LOUTH .. ..	4	1	0	3	0.9
BRECON .. ..	88	5	2	85	12	LONGFORD ..	4	0	0	4	0.9
RADNOR .. ..	24	0	1	25	5	GALWAY .. ..	6	1	0	5	0.2
MONTGOMERY ..	26	0	0	26	3	ROSCOMMON ..	2	0	0	2	0.2
FLINT .. ..	16	2	0	14	5	MAYO .. ..	9	0	1	10	0.5
DENBIGH .. ..	44	9	3	38	6	SLIGO .. ..	3	1	0	2	0.3
MERIONETH ..	18	2	2	18	3	LEITRIM .. ..	2	0	0	2	0.3
CARNARVON ..	53	5	1	49	9	CAVAN .. ..	2	0	2	4	0.5
ANGLESEY .. ..	12	1	1	12	4	FERMANAGH..	3	0	0	3	0.4
ISLE OF MAN ..	8	0	0	8	3	MONAGHAN ..	1	0	0	1	0.2
CHANNEL ISLANDS	30	5	0	25	33	ARMAGH .. ..	5	0	0	5	1.0
						DOWN .. ..	15	0	2	17	1.8
						ANTRIM .. ..	16	1	3	18	1.5
						LONDONDERRY ..	8	0	0	8	1.0
						TYRONE .. ..	5	1	1	5	0.4
						DONEGAL .. ..	7	0	0	7	0.4

Attention may be called here to some slight change of notation in the General Table. Hitherto the letter R has been used to denote 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." In *British Rainfall 1923* this letter R is only being used for the "self-registering" instruments the reading of which appears on a dial. The use of such instruments as standards is not recommended so that there are few cases in which the R is used. Recording or autographic gauges are now denoted by A. Normally there is an ordinary rain-gauge alongside the autographic gauge. When that is the case the total rainfall as given by the readings of the ordinary or check gauge is printed, and the conventional sign (+A) is introduced to inform the reader that autographic records are available locally for reference. It is hoped that this notation will prove of service on occasions of heavy rainfall when it is important to know where details as to the duration of the downpours can be obtained.

INSPECTIONS.—During the year ending March 31st, 1924, 131 rain-gauge stations were inspected by the staff of the British Rainfall Organization as well as 19 sites for new gauges. The most important groups of inspections were in Yorkshire and in the neighbourhood of London. The inspections in the Lune and Balder Valleys in Yorkshire were undertaken on behalf of the Tees Valley Water Board. In other cases, assistance was rendered by the London County Council, the Metropolitan Water Board and the Corporations of Oldham, Rochdale, Harrogate, Leeds and Bradford.

### SPECIAL WORK.

THE BOOK OF NORMALS, SECTION V.—One of the principal objects of the British Rainfall Organization has been the collection of statistics from which the normal rainfall of the British Isles could be computed. When the organization was taken over by the Meteorological Office it was foreseen that one of the first tasks to be undertaken would be the publication of normals for as many stations as possible. The issue of a Book of Normals in sections was already in hand and it was deemed appropriate that the additional material should be utilized for the preparation of an extra section.

The average rainfall for different parts of the country had been computed from time to time for different periods. For the new publication a single period, that covering the years 1881 to 1915 was adopted for all the stations (with a very few exceptions) monthly and annual averages being computed. At the same time the statistics were critically examined. The material was prepared under the superintendence of the late Mr. M. de Carle S. Salter.

The compilation includes the normals for 578 stations. The stations are well distributed except that in Ireland certain counties are not represented owing to the absence of long series of observations.

From maps of the normal distribution of rainfall general means for the British Isles and also for the several countries, England, Wales, Scotland, Ireland and the Isle of Man, have been determined. These general means are frequently referred to in "*British Rainfall*" and they may therefore be transcribed here. It should be mentioned that the figures were given by Mr. Salter in his book on "*The Rainfall of the British Isles*," but that those for the Isle of Man have been revised.

### MONTHLY AVERAGES OF RAINFALL, 1881-1915.

#### *General Averages Computed from Isohyetal Maps.*

Month.	England.	Wales.	Scotland.	Ireland.	Isle of Man.	England and Wales.	British Isles.
	in.	in.	in.	in.	in.	in.	in.
January .. ..	2.69	4.72	4.90	4.07	3.40	2.99	3.78
February .. ..	2.34	3.94	4.18	3.53	3.25	2.57	3.26
March .. ..	2.47	3.82	4.05	3.36	3.03	2.67	3.22
April .. ..	1.98	2.96	2.99	2.75	2.47	2.12	2.52
May .. ..	2.19	2.95	3.01	2.75	2.82	2.30	2.61
June .. ..	2.33	3.05	2.83	2.82	2.54	2.44	2.64
July .. ..	2.75	3.60	3.78	3.37	3.22	2.87	3.25
August .. ..	3.11	4.71	4.51	4.20	4.01	3.35	3.88
September .. ..	2.37	3.51	4.00	3.13	3.22	2.54	3.09
October .. ..	3.69	5.63	4.90	4.08	4.64	3.97	4.25
November .. ..	3.19	5.25	5.29	4.28	4.73	3.49	4.19
December .. ..	3.56	6.00	5.88	4.96	4.97	3.92	4.72
Year .. ..	32.67	50.14	50.32	43.30	42.30	35.23	41.41

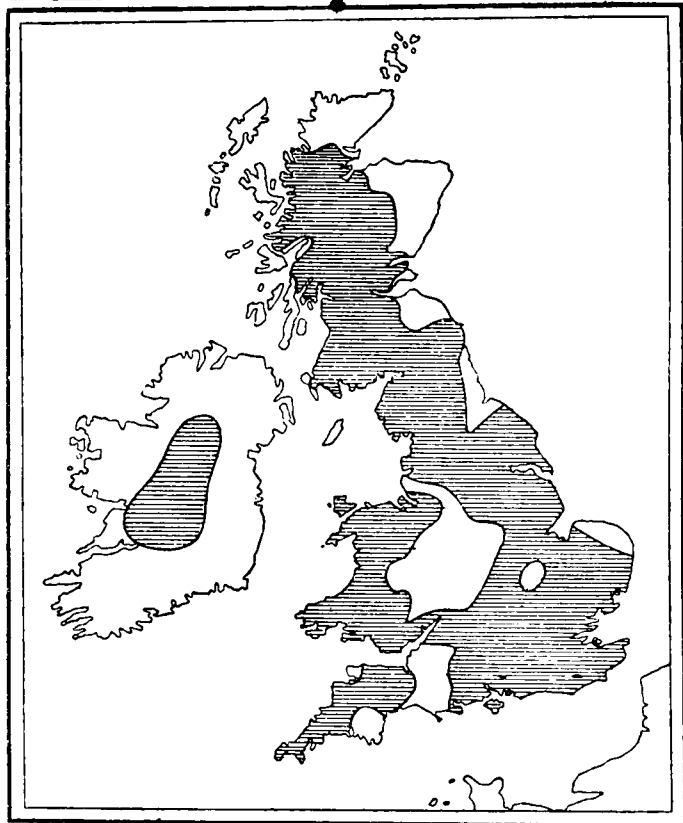
**SURVEY MAPS.**—Towards the end of 1923 work was resumed on the Rainfall Survey of the British Isles, and progress was made in the preparation of average rainfall maps on the scale of two miles to the inch. In the past the mapping of the rainfall of the British Isles on large scale maps has proceeded irregularly; for the areas where schemes for the utilisation of water on a large scale have been under discussion it has been necessary to prepare detailed maps from time to time, and such areas taken together cover a large proportion of the whole country. With aims less directly utilitarian, certain counties were mapped for the volumes on water resources published\* by the Geological Survey. The areas dealt with in the year under review included the counties of Carmarthen, Pembroke, Cardigan, Carnarvon,

\* *Memoirs of the Geological Survey.* Various volumes, 1908 to 1916.

and Anglesey. The areas which have now been mapped on the scale two miles to an inch are shown in the accompanying diagram.

RAINFALL INSURANCE.—A large number of enquiries dealt with by the Organization refer to insurance against rain. Definite information as to whether the amount of rain caught in a gauge exceeds a specified amount is sometimes of great importance. A short paper\* on the subject was read before the Royal Meteorological Society on November 21st, 1923, by Mr. Whipple, who exhibited a glass measure designed to show clearly the limit (at 0·095 in.) between amounts counting as 0·09 in. and 0·10 in., it being customary for insurance claims to be payable when the rainfall is given as 0·10 in. or more.

Sketch Map showing area of British Isles for which Large Scale Rainfall Maps are available—March, 1924.



TAPERED RAIN MEASURES.—Mention may be made here of the adoption by the Meteorological Office of measures of a new pattern. These measures† are tapered at the bottom so that the smaller amounts of rainfall can be read off easily, and in particular the limiting amount, which counts as 0·01 in., is clearly shown. The new measure has an advantage over the "Camden" in that the glass is not thickened at the bottom. That the measure will not stand up is not found to be a disadvantage.

\* "A Limit-Gauge for Rainfall." By F. J. W. Whipple, Q. J. R. Meteor. Soc., Vol. 50, p. 23, 1924.

† See *Meteorological Magazine*, Sept., 1924, p. 193.

**OBITUARY.**

MR. JOHN ANDERSON, of Portlaw, County Waterford, who died in February, 1924, commenced observations at Curraghmore in 1870. In 1880 he took over the old record commenced at Portlaw in 1841 by the late S. B. Pinn, and kept on the readings there until a few months before his death. It is to be deplored that with the passing of Mr. Anderson the longest continuous rainfall record in Ireland comes to an end.

MR. T. BIRKETT BARKER, who died in France in February, 1924, kept a useful rainfall record at Lapworth, Warwickshire, for many years. He was a frequent correspondent of the British Rainfall Organization and a painstaking observer. Mr. Barker was a Justice of the Peace for Warwickshire.

MR. C. PERCEVAL BOLTON, C.E., commenced a rainfall record at Brook Lodge, Co. Waterford, in 1875, and continued it until his death in August, 1924. His records have been published monthly in the *Meteorological Magazine* since March, 1881, and are still appearing through the courtesy of his sister, Miss Bolton, who is continuing the observations.

The REV. PERCY BURD, who died on February 24th, 1924, at the advanced age of 92 years, was an enthusiastic rainfall observer for 40 years. His first observations were made at Tiddenham (Glos.) in 1880. He became rector of Little Wittenham in 1884, where he kept records until 1899. After an interval of four years he set up a rain-gauge at Kemerton Lodge, Cheltenham, which he read with unfailing regularity until the end of 1923.

MR. RICHARD BURLINGHAM commenced to make rainfall observations in Evesham in 1865, and continued until his death in 1923, a period of 58 years. It is gratifying to note that this long record is being continued by his sister, Miss E. M. Burlingham.

MR. ROBERT BURRELL, of Westley Hall, Bury St. Edmunds, was one of the observers whose names appeared in the first volume of rainfall records produced by the late G. J. Symons, *English Rainfall*, 1860. Of that original observing corps only two members now remain, viz., Mr. W. S. Clark, of Street, Somerset, whose record still appears in these pages, and Mr. J. G. Wood, collaborator with Mr. Symons in much interesting literary work. Mr. Burrell was pardonably proud of his long record which he gave up as a result of failing health at the end of 1919, having completed 64 years' observations. He died on November 15th, 1923, in his ninetieth year.

MR. JAMES CAMPBELL, of Arbroath, was a keen student of the weather. As an active member of the Arbroath Natural History Association, and as Convenor of the Meteorological Section of the Association, he for 31 years recorded the observations at the Arbroath Meteorological Station. He was headmaster of Parkhouse School from 1876 to 1911, and afterwards headmaster of Keptie School for nine years. He was a member of the Educational Institute for Scotland, and for 13 years was secretary of the Arbroath branch.

The REVEREND MARC DECHEVRENS, S.J., whose death occurred on December 6th, 1923, had been Director of the St. Louis Observatory, Jersey, since 1894. Before this he was Director of the Zi-Ka-Wei Observatory (China) between 1875 and 1887, and it was during this period that he published his main meteorological work which dealt with the typhoons of the China Sea. He also devoted much energy to the study of atmospheric electricity and of the zodiacal light.

LT.-COL. SIR GEORGE DIXON, Bart., served with the King's Own Borderers in the campaign against the Fenians in Canada in 1866. He left the Borderers in 1873, and thereafter devoted himself largely to the volunteer movement. He was a J.P. of Cheshire and High Sheriff in 1881, and took a prominent interest in local affairs, being chairman of the Cheshire County Council since 1893. He was created a baronet in 1919. He set up a rain-gauge at his residence, Astle Hall, Chelford, in 1875, adding a second gauge a few years later. He attended to both gauges personally, and regularly furnished records up to the time of his death.

MR. JOHN MCEWAN, J.P., F.R.Met.Soc., who died in March, 1924, after a prolonged illness, did much to stimulate local interest in meteorology by the institution of prizes for scholars of Enfield School for the best essays on the weather of the year. He made observations of rainfall over a long period, and the regret with which he abandoned the pursuit is evident from his last letter to the Office in June, 1923: "I give up a work of nearly 30 years with deep regret." He took much interest in educational work, and was a governor of Birkbeck College from 1918 and chairman of the governors from 1921 to 1923.

MR. JOHN MARSHALL, who lived on the picturesque Derwent Island in Derwentwater, kept records of rainfall there continuously from 1884, when as a lad of 15 he took them over from his father, who had set up a gauge in 1865. Mr. Marshall belonged to a family who have all been students of the weather, and his sister, Miss Cordelia Marshall, of Skelwith Fold, has done much to maintain interest in the subject by the monthly publication of rainfall statistics for the Lake District. The long record at Derwent Island is being continued by Mr. C. E. Marshall.



COL. GEORGE FALCONER PEARSON was much interested in the variations in the rainfall from place to place in the west of England. In 1884 he established four rain-gauges in the neighbourhood of New Radnor, which were maintained for many years and from which he made interesting deductions. The record at his residence, Gravel Hill, Kington, was commenced in 1896, and it is hoped that arrangements will be made to continue the observations.

DR. ARTHUR A. RAMBAUT, F.R.S., who had been Radcliffe Observer at Oxford since 1897, died on October 14th, 1923. His chief work was in connection with stellar parallax, and a volume of the Radcliffe observations, containing the parallaxes of 2,400 stars, was published about a month before his death. The meteorological work of the Radcliffe Observatory received much of his attention however; his chief personal contribution to meteorology was in connection with earth thermometry.

SIR ALEXANDER WILLIAM SHAW was a valued correspondent of the British Rainfall Organization, and kept rainfall records at Limerick from 1889 until his death. He was head of the firm of W. J. Shaw and Sons, and the author of works on Irish Trade and Irish Canals and Waterways. Though holding strongly the opinion that the work of the British Rainfall Organization should be undertaken by the Government, he subscribed to the funds of the organization for many years.

SIR MARK JOHN M'TAGGART STEWART, Bart., the venerable laird of the picturesque estates of Southwick House, Kirkcudbright, and Ardwell, Wigtownshire, was a prominent agriculturist and widely known for his great philanthropic work and zealous labours in the interests of the Church of Scotland. The family record goes back to ancient days, Sir Mark being descended from Allan, son of Flaald, a Norman (from whom also descended the Earls of Arundel and Kilmarnock, now represented by the Duke of Norfolk and the Earl of Erroll). Sir Mark was Conservative M.P. for Wigtown Burghs from 1874 to 1880 and for Kirkcudbrightshire from 1885 to 1906 and again in 1910. In all he was elected to eight Parliaments and attended 31 sessions. He was a regular subscriber to *British Rainfall* and the *Meteorological Magazine* for more than 40 years, and throughout that time maintained rainfall records on his estate at Ardwell.

CAPT. GEORGE HERBERT TAYLOR SWINTON, of Swinton, was born on Christmas Day, 1852, in a ship on the River Ganges, and died on September 16th, 1923. From 1895 to 1913 he kept the rainfall record for Upminster Hall, Essex. He was proud to remember that Upminster had been the home of Dr. Derham, whose observations of rainfall made there from 1697 to 1716 are recorded in the *Philosophical Transactions of the Royal Society*. There is only one earlier record in the archives

of the British Rainfall Organization, that of Richard Townley, whose observations at Townley, near Burnley, covered (with two breaks) the years 1677 to 1704. In 1913 Captain Swinton achieved his life's ambition by repurchasing at great sacrifice the lands of his ancestors which had been sold about 30 years before. A rainfall record was started at Swinton, Berwickshire, in the name of his son, who took the observations when at home, but Capt. Swinton continued to be interested in the rainfall figures, and often took the observations himself when his son was away. In fact, he did so on the day of his death.

MR. HENRY SAMUEL TABOR, F.R.Met.Soc., was always interested in meteorology, and kept weather records while he lived at Notting Hill, London, from 1865 to 1901. In the latter year he moved to Bocking (Essex), where he maintained records of rainfall and weather until 1917. He also contributed phenological observations for use in the Phenological Reports of the Royal Meteorological Society. He was elected a Fellow of the Society as long ago as November, 1866, and served on the Council from 1878 to 1880.

MR. JOSEPH HERBERT TRITTON was one of the most prominent of the few remaining representatives of the old type of private banker. He was educated at Rugby, and afterwards joined the family banking firm of Barclay, Bevan, Tritton & Co., which is now merged in the great institution known as Barclay's Bank, of which he was for some years a director. In his younger days he took a keen interest in banking, currency, and economic questions, on which he spoke and wrote freely and authoritatively. As a president of the Institute of Bankers he delivered many addresses on these subjects. He had numerous activities, and was one of the founders and served as president of the London Chamber of Commerce. He was one of His Majesty's Lieutenants for the City of London, and he was decorated with the Persian Order of the Lion and the Sun. He kept a rainfall record for 25 years at his residence, Lyons Hall, Great Leighs, near Chelmsford.

#### *Observers deceased to September 30th, 1924.*

Small Capitals denote Observers with Records of Thirty Years and upwards.

Adams, Miss Louisa (84) .....	Skelwith Bridge, Ambleside.
Ailwyn, Lord (68) .....	Honingham Hall, Norwich.
Aitken, W. Murray .....	Invergarry, Inverness-shire.
ALLHUSEN, HENRY CHRISTIAN .....	Stoke Poges, Bucks.
Anderson, Rev. Irvine Kempt .....	Marytavy Rectory.
† ANDERSON, JOHN .....	Portlaw, Co. Waterford.
Argles, Thomas Atkinson, D.L. (64) ....	Eversley, Milnthorpe.
† Barker, T. Birkett (72) .....	Lapworth Croft, Warwickshire.
Baron, H. W. ....	Hylands, Kendal.
Barratt, Mrs. James .....	Holywath, Coniston.
Bates, Sydney Eggers, J.P. (72) .....	Manydown Park, Basingstoke.

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† See Biographical note *ante*.

Bendixon, Mrs. Harold (54) .....	Willian, Hertfordshire.
Benton, Philip (73) .....	Sutton Veny, Warminster.
†BOLTON, C. PERCEVAL, C.E. ....	Brook Lodge, Waterford.
Boyson, Miss Annie Heisch (74).....	Clapham Common, London.
Bridge, T. ....	Mayfield, Ashbourne.
Brook, Edward J. ....	Hoddam Castle, Dumfriesshire.
†BURD, REV. PERCY (92) .....	Kemerton Lodge, Cheltenham.
†BURLINGHAM, RICHARD .....	Lansdowne, Evesham.
Burney, Arthur George (73) .....	Shelsley Grange, Worcestershire.
Burnett, J. Edward (52).....	Percy Park, Tynemouth.
†BURRELL, ROBERT (89) .....	Westley Hall, Suffolk
Cameron, A. D. ....	Druimchinaidh, Perthshire.
CAMPION, COL. WILLIAM HENRY, C.B. (87)	Danny Park, Sussex.
†CAMPBELL, JAMES (71) .....	Arbroath.
Chalmers, Lawrence Edlmann .....	Farrants, Bickley, Kent.
CLUTTERBUCK, REAR-ADMIRAL WM.	Long Wittenham, Berks.
ROBERT, R.N. (78).	
Cook, John, C.E. ....	Garstang, Lancashire.
Crump, Ernest Radcliffe (63) .....	Chorlton Hall, Cheshire.
Cunningham, William Martin (76) .....	Cheshunt, Hertfordshire.
Daniell, Henry Averell (74).....	Chelsham, Surrey.
†Dechevrens, Rev. R. P. Marc, S.J. (79) .	St. Louis Observatory, Jersey.
†DIXON, COL. SIR GEORGE, Bart. (81)....	Astle Hall, Chelford.
Dochray, J. A., C.E. ....	Heswall, Cheshire.
Dowell, J. E. ....	Pyrford, Woking, Surrey.
Downe, Rt. Hon. Viscount, K.C.V.O., C.B., C.I.E. (79).	Dingley Hall, Market Harborough.
Dyson, Robert, J.P. (83) .....	Moorgate, Rotherham.
Eliot, Col. Jeffery Laurence (75) .....	Charmouth, Dorset.
Embrey, George, F.I.C., F.C.S. ....	Gloucester.
FAUNTHORPE, REV. JOHN PINCHER ....	Bromley Common, Kent.
FELLOWS, GEORGE (78) .....	Barrow-on-Soar, Loughborough.
Fox, Thomas (65) .....	Wellington, Somerset.
Garnett, Charles.....	Chippenham, Wilts.
Gatty, Albert Augustus (65) .....	Bannister Hall, Preston.
Gee, Col. Thomas, J.P. (75) .....	Hafodunos, Denbighshire.
Gordon-Duff, Thomas Duff, C.B.E. (74)	Drummuir Castle, Banff.
Hadden, Major-Gen. Sir C. F., K.C.B. (70)	Berkhamsted, Herts.
Harrison, Mrs. Frederic J.....	Maer Hall, Staffordshire.
Hatchard, Mrs. Frank S. (82).....	Pontefract, Yorks.
Hayward, Lt.-Col. J. F. Curtis, J.P. (81).	Quedgley, Glos.
Hereford, The Viscountess (80) .....	Ashford Hall, Ludlow.
Hodgson, John R.....	Southwich Cemetery, Co. Durham.
Hollist, Edward Ommannney, D.L., (85)	Lodsworth, Sussex.
HONEYBALL, COL. JAMES F., V.D., J.P. (74)	Teynham, Kent.
Hoyle, P.W. ....	Birkdale, Southport.
Jackson, J.....	Haslemere, Surrey.
Johnston, Henry W. ....	Dunros, Strathtay, Perthshire.
Jones, Rev. Herbert Lynne (59).....	Morwenstow, Cornwall.
Jukes, Alexander Henry (46) .....	Croydon.
Lawford, Miss E. C. ....	Fulbeck, nr. Leeds.
Lloyd, Rev. Charles Bennett (65) .....	Stoke Charity, Hants.
Loder-Symonds, Capt. Frederick C. (77)	Faringdon, Berks.
†McEwan, John, J.P. (68).....	Carisbrooke, Enfield.
Machin, Arthur Vessey (61) .....	Filey, Yorks.
†MARSHALL, JOHN (54).....	Derwent Island, Keswick.

Mead-Briggs, T. H. ....	Dawlish, Devon.
Miller-Stirling, Commr. G. H., O.B.E., R.N. (71).	Campsie Glen, Stirlingshire.
Mills, Joseph Truman (88) .....	Stockgrove, Leighton Buzzard.
Montgomery, Col. Cas .....	Rathmullan, Co. Donegal.
OVENS, WALTER (80) .....	Castle Douglas, Kirkcudbright.
Pawle, Mrs. Frederick Chas. (95) .....	Northcote, Reigate.
† PEARSON, COL. GEORGE FALCONER .....	Gravel Hill, Kingston.
Phillips, Rev. George Thorne .....	Wadebridge, Cornwall.
Phipps, Brig.-Gen. Ramsay Weston, R.A.	Chalfont St. Giles.
Rae, H. M. ....	Crarae, Argyllshire.
† Rambaut, Dr. Arthur Alcock, F.R.S. (64)	Radcliffe Observatory, Oxford.
Read, A. W. ....	Stockland, Honiton.
Robinson, Arthur Eliot (56) .....	Lowfield Heath, Surrey.
Robson, Oliver Claude, C.E. (75) .....	Willesden, London.
Rogers, Reginald Nankivell .....	Mawnan, Cornwall.
Scott, Archibald Edward, J.P. (72) ....	Rotherfield Park, Hants.
† SHAW, SIR ALEXANDER WILLIAM (76) ...	Derravoher, Limerick.
Shorrocks, James Cheetham .....	King's Langley, Hertfordshire.
Somerset, The Duke of (77) .....	Maiden Bradley, Bath.
Spilsbury, Mrs. Benjamin Ward .....	Findern, Derbyshire.
Steen, P. T. ....	Foxrock, Co. Dublin.
† STEWART, SIR M. J. M'TAGGART, Bart. (89)	Ardwell, Wigtownshire.
Strachan, Richard (89) .....	London.
Sutherland, Rev. Alexander .....	Nethy Bridge, Inverness-shire.
† Swinton, Capt. George Herbert T. (70)	Swinton House, Duns.
Synge, Alexander Millington, J.P. (68) .	Dawstone, Windermere.
Tennant, Lt.-Col. Edmund Wm., J.P. (64)	Upton-upon-Severn.
† TABOR, HENRY SAMUEL (86) .....	Fennes, Bocking, Essex.
Tidswell, Robert Ingham (77) .....	Haresfield Court, Glos.
Tompsett, John (89) .....	Merefield House, Crewkerne.
Trew, John Philip (70) .....	Hindhead, Surrey.
† Tritton, Joseph Herbert (79) .....	Great Leighs, Chelmsford.
Tupper, Frank Gerard St. George (79) ...	Boskenwyn, Penzance.
Turner, Miss Maude M. ....	Faringdon, Berks.
Vian, Alsager Richard (60) .....	Edenbridge, Kent.
Waldron, Rt. Hon. Lawrence A., (65)	Killiney, Dublin.
Walker, Alfred Roden .....	Lapworth, Warwickshire.
Walpole, Sir Horace George, K.C.B. (79)	Eridge Green, Sussex.
Warde, Rev. Sidney Brougham .....	Wittering, Northants.
WEBBER, W. DOWNES .....	Mitchelstown Castle, Co. Cork.
Welch, Joseph (79) .....	Laglands, Reigate.
Whitehurst, Rev. John Baron Howes ...	Farnborough, Berks.
Whittuck, Edward Arthur (79) .....	Claverton Manor, Bath.
WILLIAMS, MRS. OWEN .....	Great Marlow.
Wills, William Alfred, M.D. ....	Stedham, Midhurst.
Wood, E. J. W. ....	Stone, Staffs.
Wynford, The Dowager Lady (77) .....	Donhead St. Marys, Wilts.
Wynne, Edward N., C.E. ....	Wentworth House, Wicklow.
Yeoman, Thomas .....	Osmotherley, Yorks.
Yorke, Thomas Edward D.L., J.P. (90) ..	Pateley Bridge, Yorks.

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† See Biographical note *ante*.

BRITISH RAINFALL, 1923

PART II

RAINFALL AND METEOROLOGY

OF

1923.

## 1. A BRIEF SUMMARY OF THE RAINFALL OF THE YEAR.

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The year 1923 was wet ; for the British Isles as a whole the wettest year since 1916. The weather was also marked by some very dramatic features, notably by the great thunderstorms of July. During the night following July 9th, Londoners were able to watch the most magnificent and prolonged display of lightning in living memory. In the same storm the rainfall near Brighton exceeded  $4\frac{1}{2}$  in. Two days earlier there had been a remarkable downpour on the Grampians near Carrbridge, and bridges and embankments on the Highland Railway were severely damaged by the torrents. Again in November persistent heavy rain in Lancashire produced widespread floods. At the same time there was exceptional rain in North Wales ; no less than 10 in. being measured in one of the gauges on Snowdon in two days.

The month of most remarkable rain was February. In many places no wetter February has occurred since the rainfall observations were started. For the British Isles as a whole, February, 1923, was undoubtedly the wettest February for the last 20 years. There were only two months, March and June, with rainfall in general appreciably below the average. In June there were droughts over large areas, and in some places, *e.g.*, near Stratford-on-Avon, the total for the month was less than one quarter of an inch.

In *January* there was heavy rainfall in the Highlands, while parts of eastern Scotland, like most of England, had less rainfall than usual at this time of the year. In *February* the rainy area was further south. Over the west of England, from Cornwall to Staffordshire, the precipitation for the month was no less than three times the average. *March* was dry generally and records were broken in Scotland, *e.g.*, at Gordon Castle (Elgin) the month was the driest March for 50 years. *April* was wet. In *May*, north-east Scotland had very heavy precipitation, exceeding locally three times the average. The dryness of *June* has been referred to above. The *July* rainfall was variable, being mainly associated with thunderstorms. Great damage was done at Carrbridge (Inverness) by a heavy storm on the 8th. During *August*, Scotland and Ireland had an excess of rain. *September* was wet generally. In *October* rainfall was again above the average, the excess being most marked in the west of Scotland, whilst there was a deficiency along the

eastern seaboard from the Wash to the Tay. At the Styne, in Borrowdale, more than 30 in. of rain was recorded for the month. In the middle of *November* there was heavy rain in all parts of the country, but especially in Lancashire, North Wales and Cheshire, where much damage was done by floods. *December* was comparatively dry in the west and comparatively wet in the eastern counties.

The summer half-year was the wettest in Scotland since before 1907. The continued rain from May to the end of the year in the Hebrides and West of Scotland generally was unprecedented, and the results in this area, more particularly in the Hebrides, were serious.

Over the British Isles the total fall for the year was nearly everywhere above the average. The largest excesses occurred in the west. It is unusual for either of these features to be so highly developed in the rainfall of a year. The rainfall in relation to the average, 1881 to 1915, is set out below :—

England and Wales	..	..	..	113	per cent.
Scotland	..	..	..	120	„
Ireland	..	..	..	110	„
British Isles	..	..	..	114	„

Except in Ireland the year was the wettest since 1916. The year 1923 was also remarkable for the large number of days with rain. The number of days with rain was greater than in any other year since comparable statistics began in 1903. In general the excess above the normal was about 32 days.





credited with  $\cdot 04$  in. or more;  $\cdot 04$  in. being practically identical with a millimetre and representing a fair amount of precipitation. To facilitate discussion, special names have been adopted in the publications of the British Rainfall Organization.

A day credited with  $\cdot 01$  in. or more is a rain day.

A day credited with  $\cdot 04$  in. or more is a wet day.

In the General Table at the end of this volume will be found the number of rain days and the number of wet days for each station where the daily observations have been made with due regularity.

It will be noticed that on the whole there is more uniformity in the numbers of "wet days" than in the numbers of "rain days." The frequency with which the small amounts of rain from  $\cdot 01$  in. to  $\cdot 03$  in. are registered is affected by the extent to which the gauge is sheltered as well as by various personal considerations, so that on the whole it is of more interest to discuss the number of "wet days."

The figures of the General Table are represented graphically by the map, p. 4. It will be noticed that the number of "wet days" was greatest in the western districts and least in the east of England. The area with more than 250 wet days was unusually large, that in Connemara being especially noteworthy. In this district the number of rain days in the year exceeded 300, as many as 309 rain days being recorded at Ballynahinch. Less than 125 wet days were recorded in the south-east of England from the Wash to Dover, and a few stations recorded less than 110 wet days.

For the more detailed study of the frequency of rain days and wet days the records for 100 stations have been used. The names of the stations selected for 1923 will be seen in Table IV, pp. 8-13. Nine changes have been made from the corresponding list in *British Rainfall*, 1922.

Mean values derived from Table IV are incorporated\* in Table II (General Number of Wet Days in each month, 1917-1923, for the British Isles), in Table I (General Number of Rain Days in England and Wales, Scotland, Ireland, 1903-1923), and in Table III (General Number of Wet Days in England and Wales, Scotland and Ireland, 1917-1923).

It will be noticed that the figures for 1923 for the general number of rain days are the largest since the commencement of the table. Previously 1903 had given the largest number of rain days, but in 1923 the number of rain days exceeded that for 1903 by 5 in England and Wales, by 13 in Scotland, by 1 in Ireland, and by 7 days in the British Isles as a whole. In Scotland there were 41 "rain days"

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\* The method by which the averages for the period 1892-1911 were determined is set out in *British Rainfall*, 1911, pp. [74-79].

Table I.—*General Number of Days with .01 in. or more, 1903–1923, compared with Average, 1892–1911.*

Year.	England and Wales. Average 187.			Scotland. Average 216.			Ireland. Average 223.			British Isles. Average 204.		
	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
1912	212	+ 25	113	228	+ 12	106	235	+ 12	105	222	+ 18	109
1913	190	+ 3	102	212	— 4	98	220	— 3	99	203	— 1	100
1914	192	+ 5	103	214	— 2	99	222	— 1	100	205	+ 1	100
1915	182	— 5	97	206	— 10	95	217	— 6	97	197	— 7	97
1916	205	+ 18	110	232	+ 16	107	239	+ 16	107	220	+ 16	108
1917	185	— 2	99	217	+ 1	100	224	+ 1	100	203	— 1	100
1918	200	+ 13	107	226	+ 10	105	227	+ 4	102	214	+ 10	105
1919	191	+ 4	102	214	— 2	99	213	— 10	96	203	— 1	100
1920	203	+ 16	109	232	+ 16	107	243	+ 20	109	220	+ 16	108
1921	158	— 29	85	224	+ 8	104	217	— 6	97	190	— 14	93
1922	196	+ 9	105	234	+ 18	108	226	+ 3	101	214	+ 10	105
1923	216	+ 29	116	257	+ 41	119	253	+ 30	113	236	+ 32	116

Table II.—*Number of Wet Days (Days with .04 in. or more) in 1917 to 1923, British Isles.*

	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Year
1917 ..	11	8	14	13	10	10	9	20	12	21	15	12	155
1918 ..	15	17	9	9	10	9	15	12	22	16	13	21	168
1919 ..	19	9	15	14	8	12	8	12	13	11	15	22	158
1920 ..	20	13	17	19	15	10	19	9	13	9	12	15	171
1921 ..	20	5	17	8	13	5	10	15	7	12	12	18	142
1922 ..	20	16	13	14	9	11	16	15	13	8	11	17	163
1923 ..	15	20	11	13	14	8	13	17	16	21	16	18	182

Table III.—*General Number of Wet Days (Days with .04 in. or more) in 1917 to 1923.*

	England and Wales.	Scotland.	Ireland.	British Isles.
1917..	134	174	176	155
1918..	150	182	188	168
1919..	143	172	171	158
1920..	151	185	197	171
1921..	110	177	166	142
1922..	146	181	178	163
1923..	159	206	198	182

more than the average, equivalent to a period of nearly six weeks. In England and Wales there was in general a month of "rain days" more than the average.

The most conspicuous features of the table are the high numbers credited to February in the south, to January and the last part of the year in the north, the low numbers in June in the south are also noteworthy. At Eallabus, in Islay (one of the Inner Hebrides), there were four months, January, September, October and December, in which rain was credited to every day. In October, at numerous stations in the west of Scotland, there was only one day with less than a millimetre ( $\cdot 04$  in.). At Inverie, Loch Nevis, and at Portree, in Skye, that limit was passed on every day of the month.

June was a generally dry month, but the characteristic was especially noticeable in the West Midlands; at Mickleton, in Gloucestershire, there was only one day with serviceable rainfall, the 15th, when  $\cdot 10$  in. fell.

Table IV.—Number of "Rain Days" (·01 in. or more) and of "Wet Days" (·04 in. or more) in 1923.

County and River Division.	Station.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.	Year.	Total Rain-fall.
ENGLAND AND WALES.															in.
London . . . . . 2	St. Pancras (Camden Square).	15 10	24 17	19 12	14 9	17 11	9 5	11 9	11 9	13 10	21 20	9 7	19 16	182 135	27·03
Kent . . . . . 1	Tenterden (View Tower) . . . .	15 9	23 18	15 11	17 9	19 15	9 6	9 4	13 7	11 10	25 20	16 7	22 14	194 130	28·97
Sussex . . . . . 3	Patcham . . . . .	16 10	22 21	19 14	20 14	18 15	11 4	12 9	14 10	14 11	24 20	13 8	20 19	203 155	35·44
Hampshire 4	Lymington (The Salterns) . . .	10 7	23 19	15 12	18 14	16 10	3 2	8 5	12 8	12 11	21 20	9 5	18 14	165 127	29·32
Hampshire 5	Petersfield (Ditcham Park) . .	16 9	25 21	20 12	17 12	17 11	8 3	11 7	16 11	18 13	26 22	16 10	22 17	212 148	38·48
Berkshire . . 5	Upton . . . . .	15 7	25 21	20 15	15 10	18 13	8 2	12 6	12 9	12 10	22 20	13 6	19 14	191 133	25·88
Buckinghamshire 5	Newport Pagnall (The Croft)	16 8	25 19	19 11	18 13	19 11	12 6	14 9	14 10	18 12	22 15	14 6	19 13	210 133	26·14
Northamptonshire 4	Eye (Northolm) . . . . .	11 8	22 15	12 9	13 8	13 5	12 4	11 8	12 6	17 11	22 14	13 7	14 11	172 106	21·24
Cambridgeshire 2	Fulbourn Pumping Station . .	17 9	21 16	18 13	12 8	17 13	13 7	14 8	14 10	15 11	23 17	13 10	16 11	193 133	24·31
Essex . . . . . 4	Danbury Rectory . . . . .	16 8	20 15	19 12	13 9	17 8	7 7	12 7	12 7	13 10	22 14	15 10	18 15	184 122	22·43
Suffolk . . . . . 2	Haughley (Haughley House).	15 11	20 15	10 7	8 6	17 12	8 6	11 8	13 9	13 10	20 14	12 6	19 14	166 118	21·61
Suffolk . . . . . 4	Yarmouth (Burgh Hall) . . . .	19 11	20 15	16 9	10 6	17 11	12 7	10 8	10 8	15 14	17 14	17 14	20 13	183 130	22·85
Norfolk . . . 4	Swaffham . . . . .	14 10	19 16	14 8	9 7	13 10	8 5	10 9	12 8	13 12	19 15	16 9	21 16	168 125	26·45
Wiltshire . . 3	Durrington (Larkhill) . . . . .	14 7	24 21	18 10	17 12	20 9	8 3	13 8	14 10	13 12	22 20	11 5	20 16	194 133	28·68
Dorsetshire 3	Dorchester (Wollaston House)	16 8	25 19	16 10	18 16	17 9	6 2	8 6	11 7	17 13	25 22	12 7	21 15	192 134	38·60
South Devon 4	Holne (Church Park Cottage)	21 13	24 23	17 12	26 20	21 18	6 3	14 11	18 15	13 12	24 23	21 16	24 16	229 182	75·12
North Devon 1	Martinhoe Rectory . . . . .	20 15	24 23	13 9	17 13	20 17	5 4	17 11	17 10	22 17	28 25	14 12	25 19	222 175	46·39
Cornwall . . 1	Morwenstow Vicarage . . . . .	28 14	27 23	18 9	19 15	23 15	9 7	21 15	22 15	20 15	30 25	20 19	29 23	266 195	40·37
Cornwall . . 2	St. Austell (Trevarna) . . . . .	26 19	25 23	18 11	18 15	26 20	10 2	14 7	16 13	16 12	26 24	21 20	26 21	242 187	48·26
Somersetshire 3	Angersleigh (Leigh Court) . . .	18 10	25 22	13 9	21 13	18 14	4 2	11 6	16 10	15 12	26 21	14 11	22 16	203 146	36·27
Gloucestershire 4	Mickleton (Bank House) . . . .	15 9	23 20	18 11	17 14	16 13	7 1	14 11	14 8	12 9	25 18	13 7	19 12	193 133	28·05
Gloucestershire 5	Frampton Cotterell (Park House).	15 6	24 22	13 9	17 12	22 14	8 3	13 11	16 12	13 11	25 22	17 8	19 14	202 144	30·30

Table IV.—*Number of "Rain Days" (.01 in. or more) and of "Wet Days" (.04 in. or more) in 1923—(con.).*

County and River Division.	Station.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.	Year.	Total Rain-fall.
ENGLAND AND WALES—(con.).															in.
Hereford- shire 1	Hereford (Holmer Hall) . . . .	16 7	26 20	16 11	19 15	20 10	7 2	14 11	16 8	13 11	25 20	16 8	20 13	208 136	25·85
Shropshire 4	Shifnal (Hatton Grange) . . . .	25 16	24 23	19 14	17 13	20 14	13 8	18 16	21 16	16 12	28 19	14 13	20 14	235 178	30·25
Stafford- shire 5	Ashbourne (Mayfield House) .	21 13	25 22	13 11	15 13	19 13	11 8	16 14	22 15	19 12	22 17	15 13	21 16	219 167	39·86
Leicester- shire 4	Leicester (Stoughton Drive) . .	16 9	24 18	14 9	16 9	17 7	10 5	14 12	14 9	15 12	21 18	15 9	15 12	191 129	23·50
Lincolnshire 3	Horncastle . . . . .	15 8	23 15	15 8	10 6	17 9	14 5	14 10	16 10	18 15	23 13	18 13	21 13	204 125	26·31
Notting- hamshire 5	Worksop (Hodsock Priory) . .	15 7	23 18	15 9	13 7	17 11	13 8	14 11	18 12	11 8	18 8	19 17	19 15	195 131	26·46
Cheshire . . . 2	Northwich (Hunt's Lock) . . . .	24 16	24 19	15 11	16 11	20 17	13 6	21 13	26 20	15 14	24 21	17 12	25 17	240 177	37·91
North Lan- cashire 5	St. Michael's-on-Wyre Vicarage.	23 13	26 21	13 10	13 10	21 16	10 3	19 14	24 20	20 17	27 25	20 16	27 19	243 184	45·98
Yorkshire, W.R. 8	Meltham (Harewood Lodge) .	25 17	25 23	18 12	19 14	21 16	15 9	20 15	24 17	23 15	27 22	21 16	27 17	265 193	55·02
Yorkshire, 3	Hull (Pearson Park) . . . . .	21 9	24 19	17 10	16 8	22 10	12 3	11 8	21 17	18 15	20 9	21 16	21 14	224 138	29·02
Yorkshire, 2	Felixkirk (Mount St. John) . .	14 11	22 20	14 10	17 9	20 11	11 4	16 11	21 17	15 12	20 16	22 16	21 16	213 153	30·39
Yorkshire, 2	Richmond (Marske Hall) . . .	14 11	25 20	14 12	18 14	21 14	12 9	15 12	21 18	16 10	21 15	24 19	17 13	218 167	37·96
Yorkshire, 5	Whitby (Park Hall, Aislaby) .	17 13	25 19	15 12	16 8	21 16	10 9	21 13	20 16	14 11	20 15	21 18	21 20	221 170	34·27
Durham . . . 2	Sunderland (Mowbray Park) .	11 7	21 18	12 9	14 9	16 13	13 6	14 7	16 13	11 8	19 14	22 19	19 15	188 138	25·76
Northum- berland 6	Glanton (Glanton Pyke Gardens) .	14 11	24 21	13 11	18 13	18 14	11 9	16 12	21 17	17 14	19 16	21 21	23 17	215 176	30·56
Cumberland 1	Geltsdale . . . . .	23 15	23 17	14 9	19 14	22 15	18 10	22 14	27 22	24 18	28 23	20 18	26 17	266 192	43·36
Westmor- land 2	Grasmere (The Wray) . . . . .	28 23	28 23	16 10	18 16	20 18	15 11	24 21	25 22	25 21	30 28	20 18	28 22	277 233	122·22

Table IV.—*Number of "Rain Days" (.01 in. or more) and of "Wet Days" (.04 in. or more) in 1923—(con.).*

County and River Division.	Station.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.	Year.	Total Rain- fall.
ENGLAND AND WALES—(con.).															in.
Glamorgan- shire <b>6</b>	Treherbert (Tyn-y-waun)....	25 16	25 24	17 11	21 17	25 18	11 4	19 14	24 17	23 19	30 24	20 16	28 25	268 205	104·87
Carmar- thenshire <b>2</b>	Carmarthen (The Friary)....	26 14	27 23	17 14	20 14	20 16	13 6	21 15	26 17	24 16	30 23	22 19	29 23	275 200	52·82
Pembroke- shire <b>4</b>	Haverfordwest (Grammar School)	20 14	23 22	14 12	17 15	17 15	8 8	20 19	19 17	19 16	24 22	20 19	19 16	220 195	57·86
Cardigan- shire <b>3</b>	Lampeter (Falcondale).....	26 18	25 25	17 15	17 15	22 20	10 9	17 16	20 16	19 17	28 25	18 17	27 25	246 218	61·27
Montgom- eryshire <b>4</b>	Newtown (Penarth Weir)....	22 14	22 22	16 8	16 12	19 13	9 2	14 12	19 17	12 11	25 23	15 12	17 11	206 157	39·66
Denbigh- shire <b>2</b>	Denbigh (Garn) .....	22 18	24 20	14 9	16 12	23 19	14 7	14 13	21 19	18 16	25 22	20 18	27 19	238 192	40·76
Merioneth- shire <b>4</b>	Dolgelly (Bryntirion) .....	25 24	21 21	11 11	14 12	23 19	16 12	23 15	24 20	26 21	27 26	23 18	28 24	261 223	90·13
Anglesey ...	Llanerchymedd (Llwydiarth Esgob)	21 14	23 17	14 8	17 14	18 14	13 6	17 14	24 19	19 16	27 23	22 20	25 21	240 186	46·68
<b>England and Wales</b>	<b>(Mean of 47 Stations) .....</b>	<b>19 12</b>	<b>24 20</b>	<b>16 11</b>	<b>16 12</b>	<b>19 13</b>	<b>10 6</b>	<b>15 11</b>	<b>18 13</b>	<b>16 13</b>	<b>24 19</b>	<b>17 13</b>	<b>22 16</b>	<b>216 159</b>	<b>40·02</b>
ISLE OF MAN.															
Isle of Man ..	Douglas (Borough Cemetery).	25 18	25 23	14 10	15 14	19 16	18 9	19 16	20 17	24 13	28 24	19 15	27 22	253 197	47·26
CHANNEL ISLANDS.															
Guernsey ...	St. Martin's (Les Blanchés) ..	18 11	25 21	15 12	18 11	25 16	3 3	9 7	16 11	13 11	27 21	20 19	24 20	213 163	38·02

Table IV.—*Number of "Rain Days" (.01 in. or more) and of "Wet Days" (.04 in. or more) in 1923—(con.).*

County and River Division.	Station.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.	Year.	Total Rain- fall. in.
SCOTLAND.															
Wigtown- shire 3	Stoneykirk (Ardwell House) ..	25 19	27 23	14 10	16 12	18 11	17 7	20 14	23 19	20 15	25 18	22 18	25 22	252 188	47·22
Kirkcud- brightshire 5	Dumfries (Jardington) .....	21 14	26 22	14 12	15 13	18 13	9 8	24 19	24 20	25 17	26 24	18 16	24 19	244 197	52·48
Dumfries- shire 5	Canonbie (Irvine House) ....	20 15	22 19	9 7	18 15	19 14	6 6	22 19	25 23	20 17	27 26	15 15	19 17	222 193	61·46
Berwick- shire 3	Swinton House .....	15 9	22 19	14 9	16 8	16 12	15 8	15 11	21 14	17 12	22 12	22 17	21 12	216 143	24·53
Linlithgow- shire 2	Linlithgow Academy .....	26 13	25 21	14 10	17 12	17 8	13 10	24 14	23 16	21 18	27 20	23 17	21 15	251 174	36·77
Lanarkshire 5	Strathaven (East Overton House)	24 22	22 19	12 9	17 16	13 12	11 9	21 20	23 21	24 22	29 28	19 17	21 21	236 216	54·80
Ayrshire ... 6	Turnberry (Hotel) .....	21 19	22 19	8 6	13 10	14 11	13 8	16 12	20 15	21 17	24 20	16 13	24 19	212 169	37·55
Stirlingshire 1	Stirling (Touch Reservoir, No. 1)	24 19	23 22	12 10	15 13	16 10	11 9	25 19	24 19	26 19	28 22	17 17	23 19	244 198	58·65
Buteshire ... 3	Dougarie Lodge .....	28 21	23 22	11 10	16 14	18 13	18 10	24 19	27 22	23 19	28 25	20 17	25 23	261 215	58·39
Argyllshire 6	Dalmally (Manse of Glenorchy)	30 28	21 15	11 10	15 15	18 15	18 14	26 23	26 25	28 26	31 30	20 18	27 23	271 242	104·46
Argyllshire 14	Islay (Eallabus) .....	31 28	26 19	12 9	16 15	20 17	26 18	24 20	29 24	30 27	31 30	23 23	31 29	299 259	75·82
Argyllshire 14	Mull (Ulva) .....	30 26	25 19	13 12	17 15	20 13	25 17	26 22	26 23	27 24	31 26	21 20	29 27	290 244	76·68
Fifehire ... 3	St. Andrews (Waterworks) ..	18 11	25 18	15 11	18 10	13 8	12 7	14 10	19 15	16 12	20 12	18 13	20 15	208 142	27·23
Perthshire 11	Aberfeldy (Dall Avon) .....	24 15	26 21	13 11	17 12	16 8	12 9	22 12	21 16	17 13	25 20	19 12	25 14	237 163	43·14
Kincardine- shire 2	Stonehaven (Mains of Cowie).	25 17	24 16	17 9	19 15	21 15	17 8	21 14	25 19	20 11	21 11	22 13	28 19	260 167	32·61
Aberdeen- shire 1	Balmoral (Castle Gardens)...	24 16	26 22	14 10	22 13	26 16	17 12	17 11	23 18	19 14	24 17	26 17	27 18	265 184	37·84
Aberdeen- shire 4	Peterhead (Forehill Works) ..	21 16	21 16	12 9	19 13	24 15	18 14	13 8	21 16	18 14	20 17	25 21	27 26	239 185	40·60
Banffshire ... 3	Dufftown (Fife Street) .....	21 18	18 14	10 7	17 15	23 20	17 13	17 12	24 18	22 16	20 19	24 19	23 18	236 189	50·55
Inverness- shire 3	Cluny Castle .....	30 27	21 15	14 6	14 13	24 20	18 12	23 20	25 22	24 15	30 27	22 20	27 21	272 218	46·26

Table IV.—*Number of "Rain Days" (.01 in. or more) and of "Wet Days" (.04 in. or more) in 1923—(con.).*

County and River Division.	Station.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.	Year.	Total Rain- fall.
<b>SCOTLAND</b>															
—(con.)															in.
Inverness- <b>12</b> shire	Loch Nevis (Inverie) .....	31 31	19 16	11 10	15 13	23 21	22 18	27 25	28 25	24 23	31 31	24 22	26 24	281 259	103·63
Inverness- <b>17</b> shire	Fort William .....	31 28	20 13	13 10	14 11	22 15	15 12	27 21	28 25	27 24	31 29	22 20	28 23	278 231	89·63
Inverness- <b>18</b> shire	Skye (Portree) .....	30 29	19 15	12 10	17 11	25 21	22 17	24 23	27 22	27 24	31 31	24 24	29 26	287 253	81·29
Inverness- <b>19</b> shire	Barra (Castle Bay) .....	29 20	22 16	14 9	17 14	21 17	23 11	23 17	26 19	25 17	31 25	26 21	31 24	288 210	34·58
Ross and Cromarty	Fortrose .....	25 21	14 6	5 4	16 8	18 15	16 8	18 12	26 18	18 11	22 20	21 17	22 13	221 153	24·16
Ross and Cromarty	Achnasheen (Ledgowan) ....	30 29	18 12	12 8	16 14	24 24	19 18	20 20	29 28	27 23	30 29	21 19	28 23	274 247	83·20
Ross and Cromarty	Stornoway .....	31 24	22 17	14 8	19 13	23 22	24 16	22 18	25 22	27 22	31 30	28 26	27 25	293 243	55·17
Sutherland- <b>5</b> shire	Loch More (Achfary) .....	30 29	15 11	13 10	19 13	23 23	25 22	23 21	27 24	28 27	31 30	26 26	29 27	289 263	108·22
Caithness- <b>3</b> shire	Thurso (Buckies) .....	25 21	16 16	8 5	17 17	21 19	18 13	19 13	27 22	27 23	26 24	25 20	27 19	256 212	44·64
<b>Scotland</b> ....	(Mean of 28 Stations) .....	26 21	22 17	12 9	17 13	20 15	17 12	21 17	25 20	23 19	27 23	22 19	25 21	257 206	56·84
<b>IRELAND.</b>															
Co. Cork ... <b>6</b>	Castletownshend (Seafield) ..	22 16	26 25	13 12	19 16	15 8	2 2	20 13	23 20	20 12	22 21	18 18	19 14	219 177	55·21
Co. Cork ... <b>7</b>	Glanmire (Lota Lodge) .....	22 12	24 22	16 14	19 15	17 11	5 1	12 12	26 20	17 13	24 17	19 15	25 15	226 167	46·32
Co. Kerry ... <b>3</b>	Killarney (District Asylum) ..	24 15	25 24	17 12	24 16	23 19	11 4	17 11	21 19	22 18	27 21	22 20	27 19	260 198	57·41
Co. Kerry ... <b>4</b>	Dairynane Abbey .....	25 19	26 23	16 14	22 17	22 15	9 5	24 15	26 18	24 18	26 21	24 23	29 19	273 207	47·10
Co. Water- <b>3</b> ford	Waterford (Brook Lodge) ...	18 9	23 18	15 14	16 16	14 13	6 3	17 13	23 21	16 12	22 17	14 13	15 13	199 162	37·22



Table IV.—Number of "Rain Days" (.01 in. or more) and of "Wet Days" (.04 in. or more) in 1923—(con.).

County and River Division.	Station.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.	Year.	Total Rain-fall.
<b>IRELAND</b>															
Co. Tip- perary 1	Nenagh (Castle Lough).....	24 15	26 22	18 12	20 17	15 10	8 8	20 13	25 22	20 18	27 17	21 16	20 15	244 185	in. 44.20
Co. Tip- perary 3	Cashel (Ballinamona).....	23 14	27 19	18 15	21 16	17 9	8 5	21 12	24 20	19 14	24 18	19 15	25 15	246 172	39.86
Co. Lim- erick 2	Foynes (Coolnanes).....	25 16	26 23	18 14	22 16	19 14	10 4	22 18	24 19	22 18	28 21	26 20	30 21	272 204	46.36
Co. Wexford 4	Gorey (Courtown House).....	15 7	22 16	13 11	17 13	11 9	7 6	16 13	19 16	12 7	20 11	16 14	16 13	184 136	35.87
Queen's 2	Abbey Leix (Blandsfort).....	23 14	24 22	15 14	19 17	14 7	9 5	19 15	24 20	22 18	26 20	18 13	21 15	234 180	36.93
County															
Co. Dublin 2	Dublin (Fitz William Square)	20 9	24 20	16 10	19 14	16 13	8 7	19 9	22 18	19 10	23 12	20 10	20 10	226 142	28.51
Co. Meath 4	Kells (Headfort).....	23 15	25 21	15 13	22 18	14 9	9 6	18 14	22 19	21 17	24 15	21 13	20 15	234 175	37.71
Co. West- meath 1	Moate (Coolatore).....	27 14	26 21	18 10	19 13	17 10	14 11	22 14	24 21	24 18	28 19	19 16	24 14	262 181	33.82
Co. Galway 3	Galway (Waterdale).....	28 20	22 19	14 11	16 14	17 9	11 9	21 18	21 21	22 17	27 21	23 20	23 18	245 197	45.39
Co. Galway 3	Ballynahinch Castle.....	31 28	28 27	21 15	21 19	21 15	20 12	25 23	29 27	28 23	30 29	26 25	29 27	309 270	83.65
Co. Mayo 2	Crossmolina (Enniscoe).....	28 23	28 27	18 14	20 18	21 19	19 14	24 22	29 25	24 22	30 28	28 25	31 27	300 264	68.59
Co. Sligo 2	Collooney (Markree Castle) ..	26 20	26 22	17 13	20 16	22 15	19 14	23 17	27 26	25 22	27 25	23 22	28 25	283 237	52.98
Co. Cavan 1	Belturbet (Cloverhill).....	19 16	24 19	15 13	21 14	18 12	11 6	20 15	26 22	23 17	27 17	19 16	21 15	244 182	34.20
Co. Down 2	Seaforde .....	20 18	22 20	17 12	20 16	14 12	9 8	18 15	24 22	21 17	24 19	21 17	22 16	232 192	49.22
Co. Antrim 5	Ballymena (Harryville) .....	27 23	26 23	14 13	21 18	21 17	19 15	22 17	26 22	23 19	28 24	23 21	28 24	278 236	49.46
Co. Tyrone 3	Omagh (Edenfel) .....	24 18	25 24	18 16	20 15	22 15	16 9	24 16	26 22	23 19	30 27	22 19	30 20	280 220	50.00
Co. Donegal 3	Milford (The Manse).....	27 21	26 23	14 10	19 16	22 17	20 11	19 15	25 24	24 23	29 27	24 23	27 21	276 231	51.21
Co. Donegal 5	Killybegs (Rockmount) .....	30 25	25 21	15 12	19 17	20 17	17 13	22 20	29 24	27 25	30 26	25 23	29 25	288 248	80.12
<b>Ireland</b> .....	<b>(Mean of 23 Stations)</b> .....	<b>24 17</b>	<b>25 22</b>	<b>16 13</b>	<b>20 16</b>	<b>18 13</b>	<b>12 8</b>	<b>20 15</b>	<b>25 21</b>	<b>22 17</b>	<b>26 20</b>	<b>21 18</b>	<b>24 18</b>	<b>253 198</b>	<b>48.32</b>
<b>British Isles</b> .	<b>(Mean of 100 Stations)</b> .....	<b>22 15</b>	<b>24 20</b>	<b>15 11</b>	<b>17 13</b>	<b>19 14</b>	<b>13 8</b>	<b>18 13</b>	<b>21 17</b>	<b>20 16</b>	<b>25 21</b>	<b>19 16</b>	<b>23 18</b>	<b>236 182</b>	<b>46.69</b>

### 3. ABSOLUTE DROUGHTS, PARTIAL DROUGHTS AND DRY SPELLS IN 1923.

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In dealing statistically with the distribution of drought it is necessary to make use of somewhat arbitrary definitions. The following terms have been used in *British Rainfall* for many years.

**An Absolute Drought** is a period of at least 15 days to none of which is credited  $\cdot 01$  in. of rain or more.

**A Partial Drought** is a period of at least 29 days the mean rainfall of which does not exceed  $\cdot 01$  in.

A supplementary definition was introduced in 1919, when the closer study of the distribution of "wet days" was begun.

**A Dry Spell** is a period of at least 15 days to none of which is credited  $\cdot 04$  in. of rain or more.

The Table VII, showing the Absolute Droughts, Partial Droughts and Dry Spells which occurred during the year, refers exclusively to the 100 stations of Table IV. To save space the names of stations where these phenomena did not occur are simply omitted from the drought table.

It will be seen from the table that there was no widespread "absolute drought" during the year. There was, however, a considerable shortage of rain in the early summer in the south-western counties of England and of Ireland. This shortage is indicated by the "partial droughts" and "dry spells." The places which suffered worst were those which were missed by the thunderstorms of the middle of July and had no appreciable rain until the end of that month.

A "dry spell" over a large part of Scotland and the north of England in March will also be noticed. In parts of Scotland the low rainfall of March was unprecedented.

At Hereford there were actually four "dry spells" during the year, each of the three which occurred in the summer months just coming within the definition by lasting for 16 days.

The longest "absolute drought" of the year was in Somerset (June 19th to July 12th, 24 days, at Leigh Court, Angersleigh), the longest partial drought in Berkshire (May 30th to July 22nd, 54 days, with  $\cdot 52$  in. at Upton), the longest "dry spell" in Somerset and in Cornwall, curiously enough with the same dates in the two counties (June 16th to July 14th, 29 days at Leigh Court and at St. Austell).

The following tables show the number of droughts and of dry spells occurring year by year since the commencement of the respective

tabulations. In the period from 1887 to 1922 there was only one year, 1902, with fewer "absolute droughts," though we need not go

Table V.—*Comparative Summary of Droughts, 1887-1923.*

ABSOLUTE DROUGHTS.*					PARTIAL DROUGHTS.†			
	No. of Droughts at 100 Stations.	Mean Duration.	Longest.	Stations without one.	No. of Droughts at 100 Stations.	Mean Duration.	Longest.	Stations without one.
		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
1911	137	19	32	20	137	36	75	19
1912	105	19	32	26	68	37	69	42
1913	67	17	26	33	52	37	62	54
1914	49	20	25	65	54	33	50	57
1915	68	18	33	38	56	36	50	57
1916	52	20	29	51	44	33	43	57
1917	109	19	28	23	64	33	61	46
1918	20	16	18	83	14	34	47	87
1919	33	18	31	68	44	38	50	63
1920	18	17	22	84	22	37	54	79
1921	86	19	38	47	109	42	89	30
1922	63	17	23	46	44	36	51	66
1923	11	17	24	89	20	38	54	80
Average	62	18	26	53	51	36	56	59
1923 diff. from Average.	-51	-1	-2	+36	-31	+2	-2	+21

NOTE.—The values previous to 1910 have been increased to the equivalent of 100 Stations for ready comparison. In the columns headed "Longest," the figures refer to the selected Stations only.

\* 15 days without a "rain-day."

† 29 days averaging not more than .01 in.

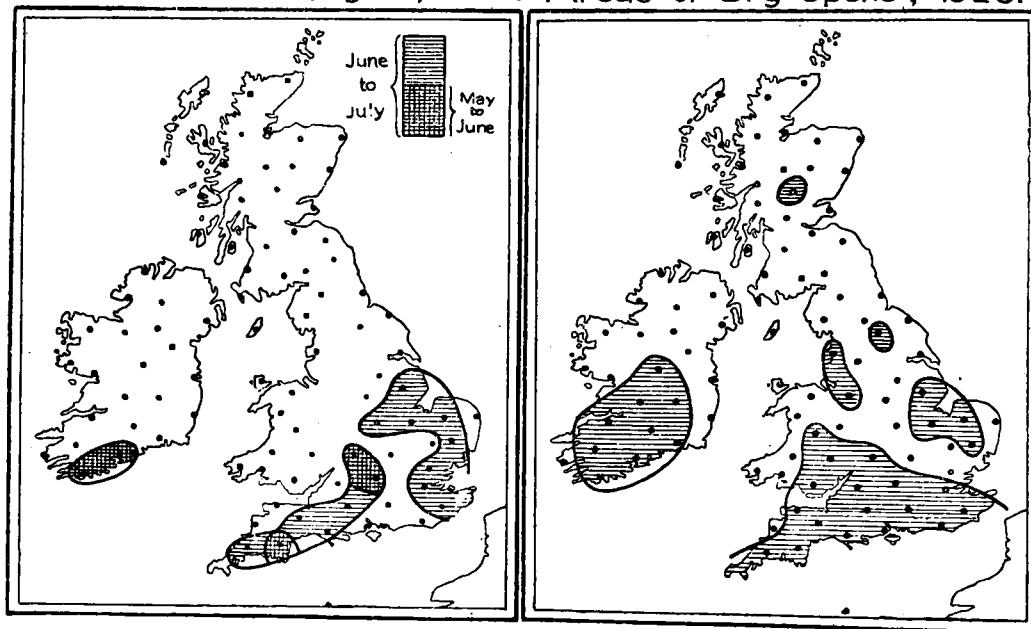
Table VI.—*Dry Spells, 1917–1923* (i.e., 15 days without a “wet day.”)\*

Year.	Number at 100 Stations.	Mean Duration.	Longest Spell.	Number of Stations with			
				None.	1 or 2	3 or 4	5 or more.
		Days.	Days.				
1917	193	20	31	5	70	25	0
1918	118	17	26	36	47	17	0
1919	98	19	38	35	62	3	0
1920	56	18	31	55	44	1	0
1921	201	21	58	21	43	29	7
1922	162	18	30	13	65	22	0
1923	65	18	29	54	43	3	0

\* A day with '04 in. or more.

back beyond 1918 for a year with fewer “partial droughts,” or beyond 1920 for fewer “dry spells.” The extent of the droughty conditions may be judged from the two little maps, in each of which the selected stations are shown. Those affected by the “partial droughts” of the

Areas of Partial Droughts, 1923. Areas of Dry Spells, 1923.



summer are indicated in the first, those affected by “dry spells” in the other.

The station with the greatest number of dry spells, viz., 4, is Holmer Hall, near Hereford.

Table VII.—*Droughts and Dry Spells in 1923.*

County and River Division.	Station.	Absolute Droughts.*			Partial Droughts.†			Dry Spells.‡				
		Began.	Ended.	Lasted.	Began.	Ended.	Lasted.	Rain.	Began.	Ended.	Lasted.	Rain.
ENGLAND				days			days	in.			days	in.
AND WALES.												
London . . . . .2	St. Pancras (Camden Square)	..	..	..	June 6	July 8	33	.32	..	July 24	..	.06
Kent . . . . .1	Tenterden (View Tower).....	..	..	..	June 16	July 27	42	.34	July 8	Aug. 1	16	.04
		..	..	..	..	..	..	..	Aug. 21	July 8	18	.04
Sussex . . . . .3	Patcham .....	..	..	..	..	..	..	..	Aug. 1	July 16	16	.03
Hampshire .4	Lymington (The Salterns)....	May 30	June 14	16	..	..	..	..	May 30	June 14	16	.00
Hampshire .5	Petersfield (Ditcham Park)....	..	..	..	..	..	..	..	June 19	July 8	20	.05
		..	..	..	..	..	..	..	Aug. 1	Aug. 16	16	.03
Berkshire...5	Upton .....	..	..	..	May 30	July 22	54	.52	May 30	June 14	16	.04
		..	..	..	..	..	..	..	July 1	July 18	18	.10
Buckingham- shire 5	Newport Pagnell (The Croft)...	..	..	..	..	..	..	..	Jan. 20	Feb. 5	17	.07
Northampton- shire 4	Eye (Northolm) .....	..	..	..	June 7	July 8	32	.32	June 13	July 8	26	.09
Essex . . . . .4	Danbury Rectory .....	..	..	..	June 16	July 18	33	.33	..	..	..	.00
Suffolk . . . . .2	Haughley (Haughley House)...	Mar. 24	April 9	17	..	..	..	..	Mar. 24	April 9	17	.00
		..	..	..	June 4	July 10	37	.35	June 26	July 10	15	.04
Norfolk . . . . .4	Swaffham .....	..	..	..	June 16	July 18	33	.32	June 19	July 8	20	.03
Wiltshire . . .3	Durrington (Larkhill).....	..	..	..	June 16	July 14	29	.26	May 30	June 14	16	.02
Dorsetshire .3	Dorchester (Wollaston House)	..	..	..	..	..	..	..	May 30	June 14	16	.02
		..	..	..	June 16	July 27	42	.39	June 26	July 14	19	.04
South Devon 4	Holne (Church Park Cottage) .	June 21	July 5	15	May 30	July 8	40	.32	June 16	July 12	20	.02
North Devon1	Martinhoe Rectory .....	..	..	..	..	..	..	..	June 16	July 12	27	.05
Cornwall . . .2	St. Austell (Trevarna).....	..	..	..	June 16	July 16	31	.30	June 16	July 14	29	.15
Somerset- shire 3	Angersleigh (Leigh Court)....	June 19	July 12	24	June 16	July 27	42	.30	June 16	July 14	29	.04

\* At least 15 days, none credited with .01 in. or more.

† At least 29 days, with an average not exceeding .01 in.

‡ At least 15 days, none credited with .04 in. or more.

Table VII.—*Droughts and Dry Spells in 1923—(con.)*.

County and River Division.	Station.	Absolute Droughts.*			Partial Droughts.†			Dry Spells.‡		
		Began.	Ended.	Last- ed.	Began.	Ended.	Last- ed.	Began.	Ended.	Last- ed.
				days			days			in.
Gloucester- shire	Mickleton (Bank House).....	..	..	..	May 30	July 11	43	May 30	June 14	16
		..	..	..	..	..	..	June 16	July 8	16
Gloucester- shire	Frampton Cotterell (Park House)	..	..	..	..	..	..	Aug. 1	Aug. 16	23
Hereford- shire	Hereford (Holmer Hall).....	..	..	..	..	..	..	Jan. 10	Jan. 31	16
		..	..	..	..	..	..	Aug. 1	Aug. 16	22
		..	..	..	..	..	..	Jan. 17	Feb. 5	20
Leicester- shire	Leicester (Stoughton Drive) ..	..	..	..	..	..	..	May 30	June 14	16
		..	..	..	..	..	..	June 26	July 11	16
Lincolnshire	Horncastle .....	..	..	..	..	..	..	Aug. 1	Aug. 16	16
Cheshire....	Northwich (Hunts Lock).....	..	..	..	June 6	July 8	31	Jan. 20	Feb. 5	17
North Lan- cashire	St. Michael's-on-Wyre	..	..	..	..	..	..	June 20	July 5	19
Yorkshire, 2 N.R.	Felixkirk (Mount St. John)...	..	..	..	..	..	..	June 20	July 8	19
Durham ...	Sunderland (Mowbray Park)...	Mar. 12	Mar. 26	15	..	..	..	June 22	July 6	15
Cumberland	Geltsdale.....	..	..	..	..	..	..	June 18	July 2	15
Glamorgan- shire	Treherbert (Tyn-y-waun).....	..	..	..	..	..	..	June 16	July 1	16
Montgom- eryshire	Newtown (Penarth Weir).....	..	..	..	..	..	..	June 18	July 6	19
Denbigh- shire	Denbigh (Garn) .....	..	..	..	..	..	..	Mar. 9	Mar. 26	18
CHANNEL ISLANDS.		..	..	..	..	..	..	Mar. 9	Mar. 26	18
Guernsey....	St. Martin's (Les Blanchés) ..	June 22	July 11	20	June 2	July 22	51	June 16	July 1	16
		..	..	..	..	..	..	Mar. 8	Mar. 22	15
		..	..	..	..	..	..	May 28	June 14	18
		..	..	..	..	..	..	Mar. 8	Mar. 26	19
		June 22	July 11	20	June 2	July 22	51	June 22	July 11	20
		..	..	..	..	..	..	Aug. 1	Aug. 16	16
		..	..	..	..	..	..	..	..	..

\* At least 15 days, none credited with .01 in. or more.

† At least 29 days, with an average not exceeding .01 in.

‡ At least 15 days, none credited with .04 in. or more.

Table VII.—*Droughts and Dry Spells in 1923—(con.)*.

County and River Division.	Station.	Absolute Droughts.*			Partial Droughts.†			Dry Spells.‡		
		Began.	Ended.	Lasted	Began.	Ended.	Lasted	Began.	Ended.	Lasted
				days			days			in.
SCOTLAND.										
Dumfries-shire <b>5</b>	Canonbie (Irvine House) . . . . .	..	..	..	..	..	..	Mar. 13	Mar. 27	15
Berwickshire <b>3</b>	Swinton House . . . . .	Mar. 10	Mar. 26	17	..	..	..	Mar. 10	Mar. 26	17
Linlithgow <b>2</b>	Linlithgow Academy . . . . .	..	..	..	..	..	..	Mar. 12	Mar. 26	15
Perthshire <b>11</b>	Aberfeldy (Dall Avon) . . . . .	..	..	..	..	..	..	May 19	June 2	15
		..	..	..	..	..	..	June 16	July 1	16
Banffshire <b>3</b>	Dufftown (Fife Street) . . . . .	..	..	..	Mar. 9	April 8	31	Mar. 11	Mar. 31	21
Ross and Cromarty <b>3</b>	Fortrose . . . . .	..	..	..	..	..	..	Feb. 8	Feb. 23	16
Caithness-shire <b>3</b>	Thurso (Buckies) . . . . .	Mar. 9	Mar. 23	15	..	..	..	Mar. 13	Mar. 31	19
		..	..	..	Mar. 6	April 10	36	Mar. 6	Mar. 23	18
IRELAND.										
Co. Cork <b>6</b>	Castletownshend (Seafeld) . . . . .	June 9	July 1	23	May 28	July 1	35	June 9	July 1	23
Co. Cork <b>7</b>	Glanmire (Lota Lodge) . . . . .	..	..	..	..	..	..	Jan. 11	Jan. 28	18
		..	..	..	May 20	July 7	49	May 29	June 13	16
Co. Kerry <b>3</b>	Killarney (District Asylum) . . . . .	June 18	July 2	15	..	..	..	June 15	July 2	18
Co. Waterford <b>3</b>	Waterford (Brook Lodge) . . . . .	June 16	June 30	15	..	..	..	June 16	July 3	18
		..	..	..	..	..	..	June 16	July 2	17
Co. Tipperary <b>1</b>	Nenagh (Castle Lough) . . . . .	..	..	..	..	..	..	May 23	June 6	15
Co. Tipperary <b>3</b>	Cashel (Ballinamona) . . . . .	..	..	..	..	..	..	May 23	June 6	15
Co. Limerick <b>2</b>	Foynes (Coolnanes) . . . . .	..	..	..	..	..	..	June 16	July 2	17
Queen's County <b>2</b>	Abbey Leix (Blandsfort) . . . . .	..	..	..	..	..	..	June 16	June 30	15
Co. Westmeath <b>1</b>	Moate (Coolatore) . . . . .	..	..	..	..	..	..	May 23	June 7	16
Co. Down <b>2</b>	Seaforde . . . . .	..	..	..	..	..	..	May 23	June 6	15
		..	..	..	..	..	..	May 26	June 9	15

\* At least 15 days, none credited with .01 in. or more.

† At least 29 days, with an average not exceeding .01 in.

‡ At least 15 days, none credited with .04 in. or more.

#### 4. RAIN SPELLS AND WET SPELLS IN 1923.

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Before 1903 there was no systematic treatment in *British Rainfall* of the spells of wet weather. Perhaps it was because 1903 was "a very wet year," and one in which "continuity rather than intensity was the characteristic of the rainfall," that the tabulation of such spells was commenced then. However that may be, that year has not yet been surpassed either in regard to the total number of rain spells in the country or with regard to the number of stations with numerous rain spells.

The definition of a rain spell (a "rainy spell" it was called in 1903) corresponds with that of an absolute drought. Similarly the definition of a wet spell and dry spell correspond.

**A Rain Spell** is a period of at least 15 days to each of which is credited .01 in. or more.

**A Wet Spell** is a period of at least 15 days to each of which is credited .04 in. or more.

In the preparation of Table X, which incorporates particulars of the "rain spells" and "wet spells" of 1923, the records for the 100 stations of Table IV have again been utilised. Only 17 of the stations fail to qualify for the table; these are mostly in the eastern and midland counties of England. On the other hand, in the west of Scotland and of Ireland the rain spells covered about half the year.

Over large areas in the south of England and of Ireland there was a "rain spell" in the last half of February, but in general there was no "wet spell." Thus at Petersfield (Ditcham Park), where there was precipitation on each of the 26 days, from February 6th to March 3rd, there were 5 days each credited with less than .04 in., and no "wet spell" of 15 consecutive days each with .04 in. or more.

The persistent rain of the latter half of the year in the western Highlands and the Hebrides is brought out by the table. Taking one station with another, we may say that there was hardly a break in the sequence of rain days after July 14th. As a matter of fact, the longest wet spell of the year was at Inverie, on Loch Nevis, in January and February, 42 days, but there was a spell of 41 days both at that same station and at Portree from September 29th to November 8th. The longest "rain spell" of the year was at Eallabus, in Islay, where there was rain on each of the 89 days from August 12th to November 8th. As will be seen from Table VIII this is the longest rain spell to be found in the analysis which goes back to 1903. The nearest approach to a precedent occurred in 1914, in



which year there were 70 consecutive rain days, from January 22nd to April 1st, at Darrynane Abbey, in Co. Kerry.

Table VIII.—*Comparative Table of Rain Spells\* at 100 Stations, 1903–1923.*

Year.	No. of Rain Spells.	DURATION OF SPELLS.				STATIONS WITH			
		Mean.		Greatest.		None.	1 or 2.	3 or 4.	5 or more.
		Days.	Mean rain per day	Days.	Mean rain per day.				
			in.		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
1912	198	22	.27	58	.19	29	32	30	9
1913	128	21	.29	64	.19	44	34	19	3
1914	150	22	.29	70	.28	30	44	25	1
1915	132	20	.27	38	.25	34	47	16	3
1916	231	20	.29	62	.28	19	41	28	12
1917	152	22	.28	52	.19	30	48	17	5
1918	186	23	.30	56	.21	21	51	19	9
1919	143	20	.26	46	.31	29	53	14	4
1920	165	20	.25	45	.24	32	45	12	11
1921	184	22	.29	45	.25	31	36	25	8
1922	170	21	.26	49	.35	30	42	23	5
1923	222	23	.26	89	.31	17	47	21	15
Average	172	21	.27	52	.28	29	44	19	8

NOTE.—The values previous to 1910 have been increased to the equivalent of 100 Stations for comparison. In the columns headed "Greatest" the figures refer to the selected Stations only.

\* At least .01 in. each day, 15 days or more.

Table IX.—*Wet Spells (at least .04 in. each day, 15 days or more), 1917–1923.*

Year.	Number of Wet Spells.	Mean Duration.		Longest Spell.		STATIONS WITH			
		Days.	Mean rain per day	Days.	Mean rain per day.	None.	1 or 2.	3 or 4.	5 or more.
			in.		in.				
1917	55	19	.35	31	.46	67	28	3	2
1918	49	21	.40	36	.44	70	26	4	0
1919	49	17	.29	33	.34	66	29	5	0
1920	47	18	.37	31	.61	75	17	8	0
1921	59	20	.41	29	.32	69	22	9	0
1922	65	20	.36	42	.28	64	29	7	0
1923	62	20	.36	42	.39	73	17	8	2



Table X.—*Rain Spells and Wet Spells in 1923—(con.)*.

County and River Division.	Station.	Rain Spells.*				Wet Spells.†				Max. in a Day during Rain Spell.	
		Began.	Ended.	Lasted	Total Rain.	Began.	Ended.	Lasted	Total Rain.	Date.	Rain.
ENGLAND AND WALES—(con.).											
Shropshire . . . 4	Shifnal (Hatton Grange) . . .	14.xii.22	Jan. 3	days 21	in. 4.27	Feb. 6	Feb. 20	days 15	in. 3.32	20.xii.22	in. 1.41
		Feb. 6	Mar. 9	32	5.58					Feb. 17	.47
		Aug. 16	Sept. 2	18	2.26					Aug. 25	.39
Leicestershire 4	Leicester (Stoughton Drive) . .	Feb. 6	Mar. 1	24	2.97					Feb. 12	.37
Cheshire . . . . 2	Northwich (Hunt's Lock) . . .	Aug. 14	Aug. 29	16	3.11					Aug. 29	.81
North Lanca-shire 5	St. Michael's-on-Wyre	Feb. 6	Mar. 3	26	4.75					Feb. 26	.52
	Vicarage										
Yorkshire, W.R. 8	Meltham (Harewood Lodge) .	14.xii.22	Jan. 10	28	8.53					20.xii.22	1.82
		Feb. 6	Feb. 22	17	3.37					Feb. 18	.63
		Sept. 11	Sept. 27	17	3.22					Sept. 17	.55
Yorkshire, E.R. 3	Hull (Pearson Park) . . . . .	Feb. 6	Mar. 2	25	4.41					Feb. 18	.74
		May 9	May 23	15	2.15					May 16	.51
		Aug. 14	Aug. 29	16	2.46					Aug. 29	.64
Yorkshire, N.R. 2	Felixkirk (Mount St. John) . .	14.xii.22	Jan. 2	20	3.67					20.xii.22	1.67
		Aug. 14	Aug. 29	16	2.68					Aug. 29	.91
Yorkshire, N.R. 2	Richmond (Marske Hall) . . .	Feb. 6	Feb. 22	17	4.04					Feb. 7	.79
Yorkshire, N.R. 5	Whitby (Park Hall, Aislaby)	Feb. 18	Mar. 12	23	3.04					Feb. 26	.71
Northumber-land 6	Glantou (Glantou Pyke Gardens)	Feb. 6	Feb. 21	16	2.64					Feb. 10	.48
Cumberland 1	Geltsdale . . . . .	Aug. 15	Sept. 1	18	5.65					Aug. 29	1.38
		Sept. 24	Oct. 16	23	3.43					Sept. 25	.55
Westmorland 2	Grasmere (The Wray) . . . . .	Jan. 26	Mar. 9	43	18.78					Feb. 1	2.38
		Sept. 15	Oct. 16	32	14.25					Sept. 24	1.52
		Oct. 18	Nov. 5	19	17.71					Oct. 29 & Nov. 2	2.79

\* At least 15 days, each credited with .01 in. or more.

† At least 15 days, each credited with .04 in. or more.

Table X.—*Rain Spells and Wet Spells in 1923—(con.)*.

County and River Division.	Station.	Rain Spells.*			Wet Spells.†			Max. in a Day during Rain Spell.	
		Began.	Ended.	Lasted.	Total Rain.	Began.	Ended.	Date.	Rain.
ENGLAND AND WALES—(con.). Glamorgan-shire	Treherbert (Tyn-y-Waun) ..	Feb. 15	Mar. 9	23 days	10·98 in.	Feb. 15	Mar. 3	Feb. 17	1·86 in.
		May 9	May 30	22	4·61	..	..	May 14	1·03
		Aug. 16	Aug. 30	15	9·43	..	..	Aug. 29	2·47
		Sept. 12	Sept. 29	18	7·57	..	..	Sept. 24	1·72
		Oct. 1	Oct. 30	30	15·58	Oct. 16	Oct. 30	Oct. 18	1·49
Carmarthen-shire	Carmarthen (The Friary) ...	19.xii.22	Jan. 15	28	6·36	..	..	21.xii.22	·94
		Feb. 5	Mar. 8	32	9·46	Feb. 20	Mar. 7	Feb. 6	1·36
		Aug. 16	Sept. 4	20	4·98	..	..	Aug. 23	1·30
		Sept. 12	Sept. 29	18	3·61	..	..	Sept. 17	·95
		Oct. 16	Nov. 10	26	6·26	..	..	Oct. 29	·77
Pembrokeshire	Haverfordwest (Grammar School)	Nov. 30	Dec. 14	15	3·11	..	..	Dec. 1	·74
Cardiganshire	Lampeter (Falcondale) .....	Feb. 19	Mar. 6	16	4·60	..	..	Feb. 25	·90
Denbighshire	Denbigh (Garn) .....	12.xii.22	Jan. 11	31	8·19	..	..	14.xii.22	1·00
		Feb. 15	Mar. 7	21	6·45	Feb. 15	Mar. 7	Feb. 17	1·00
		Oct. 1	Oct. 18	18	4·22	..	..	Oct. 3	·72
		14.xii.22	Jan. 3	21	6·03	..	..	23.xii.22	1·30
		Feb. 6	Feb. 21	16	3·26	..	..	Feb. 7	·82
Merionethshire	Dolgelly (Bryntirion) .....	May 8	May 22	15	3·42	..	..	May 22	·77
		Aug. 16	Sept. 1	17	2·73	..	..	Aug. 29	·61
		Aug. 16	Sept. 4	20	5·85	..	..	Aug. 25	1·09
		Sept. 11	Oct. 8	28	10·03	Sept. 11	Sept. 25	Oct. 8	1·15
		Dec. 14	Dec. 31	18	6·48	..	..	Dec. 27	1·04
Anglesey	Llanerchymedd (Llwydiarth Esgob)	11.xii.22	Jan. 2	23	5·04	..	..	23.xii.22	·87

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† At least 15 days, each credited with ·04 in. or more.

Table X.—Rain Spells and Wet Spells in 1923—(con.).

County and River Division.	Station.	Rain Spells.*				Wet Spells.†				Max. in a Day during Rain Spell.	
		Began.	Ended.	Lasted	Total Rain.	Began.	Ended.	Lasted	Total Rain.	Date.	Rain.
ISLE OF MAN. Isle of Man ...	Douglas (Borough Cemetery)	Jan. 1	Jan. 15	15	in. 2·74	..	..	days	in.	Jan. 6	in. ·66
		Feb. 5	Feb. 21	17	3·31	..	..	..	..	Feb. 13	·46
		Sept. 15	Oct. 18	34	5·95	..	..	..	..	Sept. 17	·70
CHANNEL ISLANDS. Guernsey .....	St. Martin's (Les Blanchés) ..	16.xii.22	Jan. 3	19	4·78	16.xii.22	Jan. 3	19	4·78	17.xii.22	1·01
		Feb. 15	Mar. 3	17	4·11	..	..	..	..	Feb. 25	·92
		May 4	May 20	17	3·59	..	..	..	..	May 12	1·00
SCOTLAND. Wigtownshire 3 Kirkcudbright-5 shire	Stoneykirk (Ardwell House).. Dumfries (Jardington) .....	Feb. 5	Mar. 7	31	6·45	..	..	..	..	Feb. 26	·63
		Jan. 28	Feb. 18	22	4·81	..	..	..	..	Feb. 7	·87
		May 6	May 20	15	1·87	..	..	..	..	May 14	·50
Berwickshire 3 Linlithgow ...2 Lanarkshire ...5	Swinton House ..... Linlithgow Academy ..... Strathaven (East Overton House)	Sept. 11	Sept. 29	19	4·64	..	..	..	..	Sept. 17	·92
		Feb. 23	Mar. 9	15	1·68	..	..	..	..	Feb. 28	·36
		Jan. 28	Feb. 18	22	3·34	..	..	..	..	Feb. 15	·54
Stirlingshire ..1	Stirling (Touch Reservoir, No. 1) Dougairie Lodge .....	Sept. 29	Oct. 16	18	2·92	Oct. 1	Oct. 16	16	2·77	Oct. 10	·47
		Oct. 20	Nov. 5	17	6·92	..	..	..	..	Nov. 2	1·49
		Sept. 9	Sept. 27	19	7·21	..	..	..	..	Sept. 13	1·38
Buteshire .....3	Dalmally (Manse of Glenorchy)	Jan. 1	Jan. 15	15	3·46	..	..	..	..	Jan. 1	·60
		July 14	July 30	17	3·12	..	..	..	..	July 22	·67
		Oct. 18	Nov. 4	18	4·17	..	..	..	..	Oct. 29	·60
Argyllshire ..6	Dalmally (Manse of Glenorchy)	Jan. 12	Feb. 3	23	11·83	Jan. 17	Feb. 3	18	10·41	Feb. 1	1·85
		July 14	July 31	18	9·32	July 15	July 31	17	9·29	July 22	2·30
		Sept. 3	Nov. 5	64	30·02	Sept. 3	Sept. 22	20	10·05	Sept. 17	2·17
		Dec. 9	Dec. 23	15	6·26	Sept. 29	Oct. 30	32	14·46	Dec. 9	1·65

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Table X.—*Rain Spells and Wet Spells in 1923—(con.)*.

County and River Division.	Station.	Rain Spells.*			Wet Spells.†			Max. in a Day during Rain Spell.	
		Began.	Ended.	Lasted	Total Rain.	Began.	Ended.	Lasted	Total Rain.
SCOTLAND —(con.). Argyllshire .. <b>14</b>	Islay (Eallabus) .....	Jan. 1	Feb. 22	days 53	in. 12.42	Jan. 1	Jan. 16	days 16	in. 4.89
		May 5	May 24	20	3.41	..	..	..	..
		July 14	July 29	16	4.68	Sept. 3	Sept. 22	20	7.16
		Aug. 12	Nov. 8	89	27.77	Oct. 1	Oct. 30	30	11.23
		Nov. 29	Dec. 31	33	8.94	Dec. 17	Dec. 31	15	4.80
Argyllshire .. <b>14</b>	Mull (Ulva) .....	Jan. 12	Feb. 15	35	7.10	..	..	..	..
		May 5	May 20	16	2.62	..	..	..	..
		July 14	July 30	17	5.48	..	..	..	..
		Sept. 3	Sept. 22	20	7.34	..	..	..	..
		Sept. 29	Nov. 4	37	12.75	..	..	..	..
Fifeshire .... <b>3</b>	St. Andrews (Water Works)	Dec. 9	Dec. 31	23	7.40	Dec. 9	Dec. 23	15	4.05
Perthshire .. <b>11</b>	Aberfeldy (Dall Avon) .....	Feb. 5	Feb. 21	17	2.63	..	..	..	..
		Feb. 24	Mar. 12	17	2.56	..	..	..	..
		Feb. 5	Feb. 21	17	6.10	..	..	..	..
		July 15	Aug. 3	20	3.15	..	..	..	..
		Feb. 20	Mar. 12	21	2.63	..	..	..	..
Kincardine-shire <b>2</b>	Stonehaven (Mains of Cowie)	May 9	May 26	18	3.98	..	..	..	..
Aberdeenshire <b>1</b>	Balmoral (Castle Gardens) ..	Jan. 1	Jan. 16	16	2.02	..	..	..	..
		Feb. 5	Feb. 21	17	4.65	..	..	..	..
		May 7	May 27	21	4.37	..	..	..	..
		Nov. 9	Nov. 24	16	2.45	..	..	..	..
		May 6	May 21	16	3.76	..	..	..	..
Aberdeenshire <b>4</b>	Peterhead (Forehill Works) ..	Dec. 12	Dec. 27	16	2.44	..	..	..	..
Banffshire .... <b>3</b>	Dufftown (Fife Street) .....	May 8	May 26	19	9.24	May 8	May 22	15	6.70
Inverness-shire <b>3</b>	Cluny Castle.....	Jan. 1	Jan. 17	17	4.80	..	..	..	..
		Jan. 19	Feb. 12	25	5.54	..	..	..	..

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Table X.—Rain Spells and Wet Spells in 1923—(con.).

County and River Division.	Station.	Rain Spells.*				Wet Spells.†				Max. in a Day during Rain Spell.	
		Began.	Ended.	Lasted	Total Rain.	Began.	Ended.	Lasted	Total Rain.	Date.	Rain.
SCOTLAND —(con.). Inverness-shire 3	Cluny Castle—(con.). . . . .	May 4	May 22	19 days	2.86 in.	July 15	July 31	17 days	2.69 in.	May 10	.87
		July 15	July 31	17	2.69	July 15	July 31	17	2.69	July 31	.49
		Aug. 12	Aug. 27	16	3.89	..	..	..	..	Aug. 23	.67
		Oct. 1	Oct. 16	16	2.61	..	..	..	..	Oct. 9	.60
		Oct. 18	Nov. 5	19	4.66	..	..	..	..	Nov. 2	.68
		Dec. 6	Dec. 26	21	2.71	..	..	..	..	Dec. 21	.42
		21.xii.22	Feb. 11	53	21.32	Jan. 1	Feb. 11	42	16.38	Jan. 7	1.60
		May 4	May 21	18	5.88	..	..	..	..	May 12	1.25
		July 14	July 31	18	7.45	July 14	July 31	18	7.45	July 21	1.20
		Aug. 12	Sept. 1	21	7.95	..	..	..	..	Aug. 20	1.81
Inverness- shire 12	Loch Nevis (Inverie) . . . . .	Sept. 29	Nov. 8	41	20.01	Sept. 29	Nov. 8	41	20.01	Oct. 20	1.90
		Dec. 6	Dec. 23	18	7.93	Dec. 9	Dec. 23	15	7.23	Dec. 21	1.17
		Jan. 1	Feb. 15	46	18.63	..	..	..	..	Feb. 1	1.94
		July 14	Aug. 3	21	7.86	..	..	..	..	July 22	1.60
		Aug. 12	Aug. 31	20	7.19	..	..	..	..	Aug. 26	1.45
		Sept. 3	Sept. 27	25	10.60	Sept. 8	Sept. 22	15	6.93	Sept. 11	1.64
		Sept. 29	Nov. 8	41	17.29	Oct. 14	Nov. 5	23	10.91	Oct. 29	1.29
		Dec. 9	Dec. 27	19	5.39	..	..	..	..	Dec. 14	.98
		Jan. 12	Feb. 11	31	8.06	Jan. 17	Feb. 10	25	7.42	Feb. 5	1.70
		May 3	May 26	24	5.06	May 4	May 20	17	4.10	May 10	.64
Inverness- shire 17	Fort William . . . . .	Sept. 3	Sept. 24	22	7.23	Sept. 8	Sept. 22	15	6.03	Sept. 17	.82
		Sept. 29	Nov. 8	41	17.26	Sept. 29	Nov. 8	41	17.26	Oct. 20	2.45
		Nov. 30	Dec. 23	24	7.00	Dec. 9	Dec. 23	15	4.59	Dec. 9	.64
		14.xii.22	Jan. 13	31	4.17	..	..	..	..	Jan. 1	.38
		Jan. 19	Feb. 9	22	1.86	..	..	..	..	Jan. 29	.33
Inverness- shire 18	Skye (Portree) . . . . .	..	..	..	..	..	..	..	..	..	..
		..	..	..	..	..	..	..	..	..	..
		..	..	..	..	..	..	..	..	..	..
		..	..	..	..	..	..	..	..	..	..
		..	..	..	..	..	..	..	..	..	..
		..	..	..	..	..	..	..	..	..	..
		..	..	..	..	..	..	..	..	..	..
		..	..	..	..	..	..	..	..	..	..
		..	..	..	..	..	..	..	..	..	..
		..	..	..	..	..	..	..	..	..	..
Inverness- shire 19	Barra (Castlebay) . . . . .	..	..	..	..	..	..	..	..	..	..
		..	..	..	..	..	..	..	..	..	..
		..	..	..	..	..	..	..	..	..	..
		..	..	..	..	..	..	..	..	..	..
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		..	..	..	..	..	..	..	..	..	..
		..	..	..	..	..	..	..	..	..	..

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Table X.—*Rain Spells and Wet Spells in 1923—(con.)*.

County and River Division.	Station.	Rain Spells.*				Wet Spells.†				Max. in a Day during Rain Spell.	
		Began.	Ended.	† Lasted.	Total Rain.	Began.	Ended.	† Lasted.	Total Rain.	Date.	Rain.
SCOTLAND —(con.). Inverness-shire	Barra (Castlebay)—(con.). . . .	May 6	May 20	days 15	in. 1·59	..	..	days ..	in. ..	May 12	in. .33
		July 14	July 29	16	1·63	..	..	..	..	July 18	.32
		Sept. 29	Nov. 8	41	5·77	..	..	..	..	Oct. 20	.60
		Nov. 28	Dec. 31	34	3·90	..	..	..	..	Dec. 31	.46
		Jan. 1	Jan. 15	15	8·04	Jan. 1	Jan. 15	15	8·04	Jan. 9	2·01
Ross and Cromarty	Achnasheen (Ledgowan) . . . .	Jan. 17	Feb. 3	18	8·69	Jan. 19	Feb. 3	16	8·44	Jan. 31	1·50
		May 4	May 26	23	6·98	May 4	May 26	23	6·98	May 16	.82
		Aug. 12	Sept. 1	21	5·84	Aug. 12	Aug. 29	18	5·49	Aug. 20	1·22
		Sept. 3	Sept. 26	24	5·90	..	..	..	..	Sept. 11	.97
		Sept. 29	Oct. 23	25	8·63	Oct. 1	Oct. 23	23	8·37	Oct. 7	.91
Ross and Cromarty	Stornoway . . . . .	Dec. 6	Dec. 27	22	7·11	Dec. 7	Dec. 23	17	6·96	Dec. 21	1·09
		17.xii.22	Feb. 10	56	11·77	..	..	..	..	Jan. 2	.67
		Sept. 8	Nov. 8	62	15·33	Oct. 1	Oct. 23	23	5·63	Nov. 7	1·36
		Nov. 10	Nov. 24	15	3·27	Oct. 25	Nov. 8	15	5·09	..	..
		Dec. 4	Dec. 25	22	4·43	Nov. 10	Nov. 24	15	3·27	Nov. 17	.41
Sutherland-shire	Loch More (Achfary) . . . . .	Jan. 5	Feb. 7	34	15·75	Dec. 6	Dec. 24	19	4·36	Dec. 7	.71
		Sept. 15	Nov. 8	55	21·04	Jan. 17	Feb. 3	18	10·30	Feb. 1	1·73
		Nov. 10	Nov. 25	16	7·45	Sept. 26	Oct. 25	30	12·58	Nov. 2	1·31
		Nov. 29	Dec. 24	26	10·38	Nov. 10	Nov. 25	16	7·45	Nov. 11	2·42
		30.xii.22	Jan. 15	17	2·16	Dec. 5	Dec. 24	20	9·72	Dec. 15	1·57
Caithness-shire	Thurso (Buckies) . . . . .	Sept. 29	Oct. 17	19	3·76	Oct. 3	Oct. 17	15	3·16	Jan. 10	.35
		Dec. 13	Dec. 27	15	2·93	..	..	..	..	Oct. 10	.58
IRELAND. Co. Cork . . . . .	Castletownshend (Seafield) . . . . Glanmire (Lota Lodge) . . . .	24.xii.22	Jan. 10	18	4·70	..	..	..	..	Dec. 21	.96
		11.xii.22	Jan. 13	34	6·26	..	..	..	..	28.xii.22	.70
Co. Cork . . . . .										13 & 21.xii.22	.57

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Table X.—Rain Spells and Wet Spells in 1923—(con.).

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		Began.	Ended.	Lasted.	Total Rain.	Began.	Ended.	Lasted.	Total Rain.	Date.	Rain.
IRELAND—(con.). Co. Kerry ... <b>3</b>	Killarney (District Asylum) .	15.xii.22	Jan. 13	days 30	in. 9.25	15.xii.22	Jan. 10	days 27	in. 9.17	21.xii.22	in. .97
		Feb. 20	Mar. 7	16	4.94	..	..	..	..	Feb. 26	1.06
		May 5	May 22	18	2.98	May 8	May 22	15	2.82	May 10	.86
		Sept. 11	Sept. 28	18	5.97	15.xii.22	Jan. 13	30	6.75	Sept. 24	1.21
Co. Kerry ... <b>4</b>	Darrynane Abbey . . . . .	15.xii.22	Jan. 13	days 30	in. 6.75	15.xii.22	Jan. 13	30	6.75	20.xii.22	.59
		Jan. 29	Feb. 12	15	2.99	..	..	..	..	Feb. 5	1.00
		Feb. 20	Mar. 6	15	4.31	..	..	..	..	Feb. 26	.75
		May 7	May 22	16	1.42	..	..	..	..	May 10	.27
Co. Waterford <b>3</b> Co. Tipperary <b>1</b>	Waterford (Brook Lodge) ... Nenagh (Castle Lough) . . . . .	Aug. 16	Aug. 31	16	2.62	..	..	..	..	Aug. 21	.36
		Sept. 11	Sept. 28	18	3.32	..	..	..	..	Sept. 16	.75
		Aug. 16	Aug. 31	16	3.43	..	..	..	..	Aug. 28	.81
		11.xii.22	Jan. 10	31	7.88	..	..	..	..	15.xii.22	.77
Co. Tipperary <b>3</b>	Cashel (Ballinamona) . . . . .	Feb. 20	Mar. 7	16	3.72	..	..	..	..	Feb. 20	.57
		Aug. 16	Aug. 31	16	4.04	..	..	..	..	Aug. 27	.56
		Sept. 11	Sept. 27	17	3.21	..	..	..	..	Sept. 17	.66
		Oct. 15	Oct. 30	16	3.10	..	..	..	..	Oct. 20	.57
Co. Limerick <b>2</b>	Foynes (Coolnanes) . . . . .	Feb. 5	Mar. 7	31	6.72	..	..	..	..	Feb. 5	.88
		Aug. 16	Aug. 31	16	3.30	..	..	..	..	Aug. 22	.68
		12.xii.22	Jan. 13	33	8.34	..	..	..	..	16.xii.22	.55
		Feb. 14	Mar. 7	22	5.34	..	..	..	..	Feb. 16	.79
Queen's County <b>2</b> Co. Dublin ... <b>2</b> Co. Meath ... <b>4</b> Co. West- meath <b>1</b>	Abbey Leix (Blandsfort) . . . . . Dublin (FitzWilliam Square). Kells (Headfort) . . . . . Moate (Coolatore) . . . . .	Aug. 16	Aug. 31	16	3.32	..	..	..	..	Aug. 20	.83
		Sept. 11	Sept. 28	18	2.95	..	..	..	..	Sept. 17	.61
		Dec. 12	Dec. 31	20	2.71	..	..	..	..	Dec. 26	.52
		Aug. 16	Sept. 1	17	3.13	..	..	..	..	Aug. 29	.57
		Aug. 16	Sept. 1	17	2.87	..	..	..	..	Aug. 29	.82
		Feb. 5	Feb. 21	17	3.14	..	..	..	..	Feb. 13	.45
		15.xii.22	Jan. 10	27	4.80	..	..	..	..	15.xii.22	.53
		Feb. 4	Feb. 18	15	2.51	..	..	..	..	Feb. 17	.42

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Table X.—*Rain Spells and Wet Spells in 1923—(con.)*.

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		Began.	Ended.	Lasted	Total Rain.	Began.	Ended.	Lasted	Total Rain.	Date.
IRELAND—(con.). Co. West- <b>1</b> meath Co. Galway <b>..3</b> Co. Galway <b>..3</b>	Moate (Coolatore)—(con.) ..	Aug. 16	Aug. 31	16	2.82	..	..	days	in.	Aug. 23
		Sept. 11	Oct. 16	36	4.41	..	..	..	..	Sept. 17
	Galway (Waterdale) .....	Feb. 9	Feb. 23	15	4.33	..	..	..	..	Feb. 15
		Oct. 16	Nov. 19	35	6.27	Oct. 19	Nov. 5	18	4.09	Oct. 26
Co. Mayo <b>....2</b>	Ballynahinch Castle .....	11.xii.22	Mar. 7	87	26.30	15.xii.22	Jan. 10	27	10.54	Feb. 17
		..	..	..	..	Jan. 26	Feb. 12	18	5.41	..
		..	..	..	..	Feb. 20	Mar. 6	15	5.55	..
		May 7	May 24	18	3.39	..	..	..	..	May 10
		Aug. 15	Sept. 1	18	5.46	Aug. 15	Aug. 31	17	5.45	Aug. 22
		Sept. 10	Oct. 30	51	16.43	Sept. 29	Oct. 29	31	9.12	Sept. 25
		Nov. 1	Nov. 20	20	6.74	..	..	..	..	Nov. 12
		16.xii.22	Jan. 15	31	11.76	..	..	..	..	Jan. 4
		Jan. 28	Mar. 6	38	11.66	Jan. 28	Feb. 18	22	7.30	Feb. 5
		..	..	..	..	Feb. 20	Mar. 6	15	4.33	..
		May 7	May 22	16	3.01	..	..	..	..	May 11
		Aug. 11	Aug. 31	21	5.44	..	..	..	..	Aug. 20
Co. Sligo <b>....2</b>		Sept. 11	Sept. 28	18	7.49	Sept. 11	Sept. 28	18	7.49	Sept. 16
		Oct. 8	Nov. 22	46	11.84	..	..	..	..	Oct. 20
		Nov. 25	Dec. 31	37	5.70	..	..	..	..	Dec. 6
		Feb. 20	Mar. 6	15	2.83	Feb. 20	Mar. 6	15	2.83	Feb. 25
		May 7	May 26	20	2.67	..	..	..	..	May 13
		Aug. 14	Sept. 1	19	5.14	Aug. 16	Sept. 1	17	4.94	Aug. 30
		Sept. 11	Sept. 28	18	5.26	Sept. 12	Sept. 28	17	5.24	Sept. 24
		Oct. 8	Oct. 29	22	4.97	..	..	..	..	Oct. 13
		Dec. 17	Dec. 31	15	2.44	..	..	..	..	Dec. 22
		Aug. 16	Sept. 1	17	2.99	..	..	..	..	Aug. 23
Co. Cavan <b>...1</b>	Belturbet (Cloverhill) (con.) ..	Sept. 11	Sept. 28	18	2.57	..	..	..	..	Sept. 24

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Table X.—*Rain Spells and Wet Spells in 1923—(con.)*.

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		Began.	Ended.	Lasted	Total Rain.	Began.	Ended.	Lasted	Total Rain.	Date. Rain.
[IRELAND—(con.)] Co. Down ... <b>2</b> Co. Antrim ... <b>5</b>	Seaforde ..... Ballymena (Harryville) .....	Feb. 20	Mar. 7	16 days	in. 4·09	..	..	..	in. ..	Feb. 25 Feb. 13 May 10 Sept. 17 Oct. 13
		Feb. 5	Feb. 21	17	3·44	..	..	..	..	Feb. 13
		May 5	May 25	21	2·67	..	..	..	..	May 10
		Sept. 15	Sept. 29	15	4·02	..	..	..	..	Sept. 17
		Oct. 8	Oct. 30	23	4·49	..	..	..	..	Oct. 13
Co. Tyrone ... <b>3</b>	Omagh (Edenfel) .....	Feb. 20	Mar. 8	17	3·94	..	..	..	..	Mar. 2
		May 7	May 25	19	2·45	..	..	..	..	May 13
		July 15	Aug. 6	23	4·29	..	..	..	..	July 30
		Aug. 16	Sept. 1	17	4·14	..	..	..	..	Aug. 20
		Sept. 11	Sept. 29	19	4·04	Oct. 1	Oct. 16	16	2·47	Sept. 24
Co. Donegal ... <b>3</b>	Milford (The Manse) .....	Oct. 1	Oct. 30	30	4·48	..	..	..	..	Oct. 20
		Dec. 6	Dec. 31	26	3·68	..	..	..	..	Dec. 27
		15.xii.22	Jan. 15	32	7·49	..	..	..	..	Jan. 1
		Jan. 28	Feb. 13	17	2·28	..	..	..	..	Feb. 5
		May 7	May 26	20	2·60	..	..	..	..	May 13
Co. Donegal ... <b>5</b>	Killybegs (Rockmount) .....	Sept. 11	Sept. 29	19	5·32	Sept. 11	Sept. 28	18	5·31	Sept. 22
		Oct. 1	Oct. 16	16	3·42	Oct. 1	Oct. 16	16	3·42	Oct. 8
		Jan. 1	Jan. 15	15	6·98	..	..	..	..	Jan. 6
		Jan. 17	Feb. 3	18	3·70	..	..	..	..	Jan. 28
		May 7	May 22	16	4·42	..	..	..	..	May 13
		July 24	Aug. 9	17	4·03	..	..	..	..	July 29
		Aug. 14	Sept. 1	19	6·18	..	..	..	..	& Aug. 2
		Sept. 11	Oct. 16	36	12·85	Sept. 11	Sept. 29	19	7·71	Aug. 20
		Oct. 18	Nov. 8	22	5·51	Oct. 1	Oct. 16	16	5·13	Oct. 8
		Dec. 14	Dec. 31	18	6·14	..	..	..	..	Nov. 2
						..	..	..	..	Dec. 25
						..	..	..	..	1·62

\* At least 15 days, each credited with ·01 in. or more.

† At least 15 days, each credited with ·04 in. or more.

## 5. DURATION OF RAINFALL IN 1923.

The duration of rainfall is estimated by the examination of the records from autographic gauges. The matter is complicated, however, by the fact that it is on occasion difficult for anyone to decide whether it is raining or not ; on the autographic records the transition between the part of the trace which represents appreciable rain and the part which does not, is necessarily vague. To turn the difficulty the convention has been adopted that the total duration of rainfall is not to be determined but only the duration of rainfall, the rate of which is at least the tenth of a millimetre per hour, i.e., 0·004 in. per hour. The tabulations at all the official stations are made according to this convention. Some of the other observers having found that their system of tabulation leads to results not far different from the standard method have not yet adopted it. In the Tables (XII and XIII) the sign § is used to indicate that the tabulations are according to the standard method. The sign D used in the corresponding tables previously is no longer printed as the daily readings are in all cases in the possession of the Meteorological Office.

The tables contain estimates for four gauges at Felixkirk (Mount St. John) and three for gauges in Plymouth. These estimates show how far consistent results are to be expected. The figures for 1923 confirm the result found at Felixkirk in previous years, the Hyetographs do not give as great durations as the other two gauges. The largest differences were found in February, 1923, in which month the duration was shown by the hyetograph (No. 98) as 84 hours, by the Casella gauge as 97 hours. The estimates for that month are complicated, however, by the difficulty of dealing with snow. In spite of precautions taken to prevent the snow remaining unmelted in the funnel of a gauge, the duration of precipitation is likely to be minimised by the choking of the funnel during the snow fall and on the other hand to be exaggerated by the dribbling of the snow water into the container hours after the fall has ceased.

The difference between the hyetographs and the Halliwell and Casella gauges seems to be due to opposite faults. With the hyetograph chart, which has the smallest vertical scale, the tabulator is likely to under-estimate the duration of light rainfall just on the limit. With the other gauges, and especially the Casella, the records of the ends of showers are not so sharp ; apparently the last drops of water flow very slowly from the funnel and thereby add to the apparent duration of rainfall.

The estimates of the rainfall duration shown by the three gauges at Plymouth agree within 5 per cent. This is noteworthy as the amounts of rain caught by the gauges on three such sites differ more

widely ; the gauges at Cattewater and the Hoe are too much exposed to the wind and therefore catch less rain than the gauge in Freedom Park.

As usual the greatest rainfall duration for the year is credited to the stations at considerable heights. For Blackwater Dam (at the foot of the reservoir of the British Aluminium Company in Glenleven on the borders of Argyll and Inverness) the duration was evaluated as 1,914 hours, averaging  $5\frac{1}{4}$  hours per day. At Eskdalemuir, the Observatory in Dumfriesshire, the average was 4 hours 20 minutes. On the other hand at Valencia Observatory in Kerry the corresponding estimate was  $2\frac{1}{4}$  hours. The lowest total in the table is credited to Nottingham, 433 hours or 1 hour 10 minutes a day.

The mean rate of rainfall, shown in Table XIII, is computed by comparing the total rainfall for the month or year with the duration shown in the previous table.

The highest averages occur in July. In that month at Earby Sewage Works near Skipton, 4·0 inches fell in 21 hours ; at Eastbourne 3·7 inches fell in 21 hours. It need hardly be pointed out that these figures give little idea of the actual intensity of the rainfall ; it is more significant that at Earby ·99 in. fell on July 27th in 1·5 hour and at Eastbourne 1·98 in. fell on July 9th, or rather in the night July 9th–July 10th in 4·5 hours.

It is of interest to examine the duration of the rainfall at different places on the same day. The conspicuously wet days of 1923 are all included in the following table (perhaps the first of its kind that has ever been published). It will be seen that it is rare for appreciable rain to fall over any large area for as many as 12 hours out of the 24. There was, however, a belt of country stretching, apparently without a break, from Falmouth to Lerwick with more than 12 hours of rain on November 13th. Some of the totals for the two days November 12th and 13th were remarkable. At Skipton there were 40 hours of rain in the 48. At Eskdalemuir there was no precipitation on the 12th after mid-day but on the 13th rain set in a few minutes before 1 h. and continued almost without ceasing until after midnight.

Table XI.—*Rainfall Duration. Certain Days in 1923.*

County.	Station.	Feb. 7	Feb. 10	Feb. 18	Apl. 25	May 22	Aug 29	Oct. 10	Oct. 19	Nov 12	Nov 13	Dec. 21	Dec. 25
		hrs.	hrs.	hrs.	hrs.	hrs.	hrs.	hrs.	hrs.	hrs.	hrs.	hrs.	hrs.
London.....	Camden Square .....	10	3	5	12	1	7	11	11	0	8	5	6
Surrey .....	Croydon * .....	13	10	4	13	1	7	5	10	0	11	10	5
" .....	Kew Obsy. ....	13	6	4	13	1	5	6	10	0	8	13	5
Kent .....	Lympne * .....	7	2	5	19	0	4	—	—	0	6	5	6
" .....	Bexley Heath .....	12	2	4	12	1	7	—	—	—	—	—	—
" .....	Grain * .....	10	1	5	12	0	3	5	11	0	8	4	5
Sussex .....	Eastbourne.....	10	6	5	20	0	3	9	3	0	7	5	6
Hampshire ...	Calshot * .....	11	7	4	22	0	7	11	13	0	10	10	7
" .....	Andover * .....	14	17	7	19	1	10	3	9	0	20	12	9
" .....	Petersfield .....	14	8	5	18	0	8	7	6	0	10	13	7
" .....	South Farnborough * ..	14	17	9	19	0	9	—	11	0	11	12	6
Middlesex.....	Palmers Green .....	11	5	5	11	1	7	9	12	0	11	3	5
Hertford.....	Rothamsted .....	14	7	5	10	0	6	13	6	0	14	4	4
" .....	Hitchin .....	13	5	5	5	0	9	14	4	0	15	5	5
Suffolk .....	Copdock .....	8	3	7	11	1	3	15	10	0	9	3	9
Devon.....	Cattewater *.....	13	8	3	16	0	4	8	4	0	15	1	10
" .....	Plymouth Hoe .....	11	7	3	15	0	4	9	3	1	14	1	9
Cornwall.....	Falmouth .....	15	7	1	14	0	3	14	3	3	15	8	9
Gloucester ...	Cirencester.....	16	8	6	6	1	10	11	3	tr.	18	10	5
Stafford .....	West Bromwich.....	8	4	4	2	2	5	11	1	0	12	9	4
" .....	Ashbourne .....	7	6	4	2	14	13	10	0	4	15	17	10
Lincoln .....	Cranwell *.....	5	12	17	1	15	8	5	1	1	17	5	9
Notts. ....	Nottingham .....	7	1	13	1	15	5	5	1	0	12	9	5
" .....	Hodsock Priory .....	6	5	12	tr.	12	6	0	tr.	5	9	9	5
Cheshire .....	Bidston Obsy. ....	8	3	4	1	12	14	5	1	12	9	10	8
Lancs.....	Blundellsands .....	8	3	3	1	17	—	2	0	19	13	16	10
" .....	Bolton .....	5	6	10	3	14	14	7	0	19	18	21	17
" .....	Leyland .....	6	5	9	2	12	12	6	0	20	14	2	1
" .....	Southport .....	5	3	3	1	11	10	3	0	21	10	14	9
" .....	Lancaster .....	5	5	6	2	9	10	9	0	20	15	17	7
Yorks. W.R. .	Haworth .....	10	9	15	3	15	16	7	tr.	21	18	9	6
" ..	Earby .....	4	7	1	1	7	10	6	0	21	14	5	7
" ..	Skipton .....	7	9	14	3	9	18	9	0	21	19	7	5
" N.R. .	Felixkirk (Hyet. 182) .	5	7	8	tr.	13	13	0	0	11	2	7	6
Glamorgan ...	Swansea .....	7	6	3	2	0	7	7	0	11	16	tr.	7
Brecon .....	Cray Res. ....	12	11	8	7	3	11	15	0	13	19	6	15
Flint .....	Shotwick * .....	9	5	8	3	15	13	3	0	3	11	18	10
Anglesey .....	Holyhead * .....	—	—	—	—	12	9	5	0	19	9	1	9
Dumfries .....	Eskdalemuir.....	11	11	16	5	1	14	7	0	9	16	14	9
Renfrew .....	Renfrew * .....	6	6	8	6	0	13	5	0	7	13	20	9
" .....	Greenock .....	2	5	—	3	0	7	3	1	8	7	7	11
Argyll .....	Blackwater Dam ....	16	7	7	13	1	8	7	4	8	7	18	—
Fife .....	Leuchars * .....	3	14	3	1	0	16	1	1	5	10	9	8
Aberdeen ....	Aberdeen Obsy. ....	8	14	0	1	0	14	tr.	0	1	5	12	6
Inverness ....	Laggan .....	9	7	2	7	tr.	9	7	2	2	5	11	0
Shetland.....	Lerwick * .....	9	10	0	13	1	0	2	2	1	12	2	1
Co. Cork .....	Cork .....	3	1	1	1	tr.	6	9	1	5	6	tr.	3
Co. Kerry.....	Valencia Obsy. ....	3	tr.	1	2	2	1	8	2	14	5	5	3
Co. Armagh ..	Armagh Obsy. ....	3	7	0	—	9	7	—	0	9	7	3	7
Co. Londonderry	Glenedra Lodge .....	3	7	2	4	8	3	17	tr.	9	3	—	17

\* In these cases the values are for the period 7h. to 7h. G.M.T. (Otherwise the period is 9h. to 9h. G.M.T.)  
tr. Indicates "trace," or duration of rainfall less than .5 hr.

Italics indicate evaluations partly estimated.

Table XII.—Duration of Rainfall at 53 Stations in the British Isles during 1923.

County and River Division.	Station.	Pattern of Gauge.	Height of Gauge ft.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Year.
				hrs.	hrs.	hrs.	hrs.	hrs.	hrs.	hrs.	hrs.	hrs.	hrs.	hrs.	hrs.	hrs.
§ London	St. Pancras (Camden Square)	Hyet.	111	30	71	47	35	32	10	27	30	29	85	28	55	479
§ Surrey	Croydon Aerodrome	Hyet.	245	31	94	54	41	43	15	23	29	24	81	33	77	545
§ "	Richmond (Kew Obsy.)*	Beckley	20	32	78	50	45	45	9	25	23	28	76	29	65	505
§ Kent	Lymyne Aerodrome	Hyet.	348	33	67	40	40	51	21	14	19	30	..	..	90	..
§ "	Grain	Hyet.	10	28	66	46	30	43	21	12	14	18	70	40	51	439
§ Sussex	Eastbourne (Motcombe Gdns.)	Hyet.	59	33	102	60	53	52	14	22	27	35	84	38	83	603
§ Hampshire	Calshot	Hyet.	9	34	99	28	66	45	9	14	32	35	100	24	73	559
§ "	Andover	Hyet.	295	41	137	48	78	48	29	23	50	38	97	39	99	727
§ "	Petersfield (Stoner Hill)	Hyet.	748	40	103	45	63	49	6	17	28	19	83	29	82	564
§ "	South Farnborough	Hyet.	231	38	141	76	64	65	12	28	33	25	97	33	80	692
§ Middlesex	Palmers Grn.(BroomfieldPk.)	Casella	138	31	74	46	31	30	15	21	30	29	85	33	49	474
§ Herts.	Harpenden (Rothamsted)	Hyet.	420	34	99	69	40	34	22	31	29	33	80	33	72	576
§ "	Hitchin (Chiltern Road)	Hyet.	298	35	87	54	40	25	23	25	32	28	79	33	62	523
§ Suffolk	Ipswich (Rookwood, Copdock)	Casella	164	41	74	35	26	25	16	20	19	23	66	40	78	463
§ S. Devon	Plymouth (Cattewater)	Hyet.	82	69	132	60	85	61	14	23	31	41	105	63	89	773
§ "	Plymouth (The Hoe)	Halliwell	117	63	126	55	78	59	11	21	32	41	100	50	84	720
§ "	Plymouth (Freedom Park)	Hyet.	208	65	136	53	80	58	13	20	37	42	98	49	86	737
§ Cornwall	Falmouth Observatory	Beckley	167	76	129	47	99	65	16	24	43	46	149	86	117	897
§ Gloucester	Cirencester (Dollarward Ho.)	Hyet.	366	47	146	55	73	37	9	33	40	57	102	40	79	718
§ Stafford	West Bromwich	Hyet.	543	33	107	29	40	29	11	33	32	40	63	30	56	503
§ "	Ashbourne (Mayfield House)	Casella	374	72	121	47	54	65	26	55	61	60	66	55	119	801
§ Lincoln	Cranwell	Hyet.	237	43	110	39	22	46	20	38	40	38	48	63	92	599
§ Nottingham	Nottingham (Trent Lane)	Halliwell	83	18	73	19	34	39	15	35	30	37	34	41	58	433
§ "	Workshop (Hodsock Priory)	Halliwell	56	23	94	36	34	49	24	34	30	39	30	49	70	512
§ Cheshire	Birkenhead (Bidston Obsy.)	Osler	189	51	91	34	50	82	29	59	66	71	97	78	109	817
§ S. Lancs.	Blundellsands (Myra)	Hyet.	35	51	82	33	58	55	15	38	49	46	67	80	95	669
§ "	Bolton (Queen's Park)	Fernley	342	110	122	42	49	85	54	58	78	80	101	96	155	1030

\* Monthly values are for period ending 24 h. on last day.

Table XII.—Duration of Rainfall at 53 Stations in the British Isles during 1923—(con.).

County and River Division.	Station.	Pattern of Gauge.	Jan. ft. in. H.	Jan. hrs.	Feb. hrs.	Mar. hrs.	Apr. hrs.	May hrs.	June hrs.	July hrs.	Aug. hrs.	Sept. hrs.	Oct. hrs.	Nov. hrs.	Dec. hrs.	Year hrs.
C. Lancs.....2	Leyland (Worden Hall) ....	Fernley	125	83	117	36	49	78	38	58	79	64	104	81	125	912
§ ".....3	Southport (Hesketh Park) ..	Fernley	39	54	79	31	47	55	19	39	64	51	71	72	105	687
§ N. Lancs. ....4	Lancaster (Greg Observatory)	Beckley	312	97	96	29	58	66	34	72	91	88	127	90	124	972
§ W.R. Yorks ..9	Haworth (Lower Laithe Res.)	Hyet.	772	109	187	67	61	82	28	69	101	92	112	115	108	1131
" ..9	Earby (Sewage Works) .....	Hyet.	425	64	111	31	45	52	23	21	50	45	69	65	48	624
" ..9	Skipton (Town Hall) .....	Hyet.	367	108	152	57	75	81	35	72	111	86	127	120	83	1107
§ N.R. Yorks. ..2	Felixkirk (Mount St. John) ..	Halliwell	542	35	89	34	27	42	18	33	49	47	49	51	76	550
§ ".....2	Felixkirk (Mount St. John) ..	Hyet.(182)	542	30	79	32	23	37	15	30	49	44	46	46	65	496
§ ".....2	Felixkirk (Mount St. John) ..	Hyet.(98)	542	30	84	31	22	37	16	31	49	43	46	47	63	499
§ ".....2	Felixkirk (Mount St. John) ..	Casella	542	35	97	34	25	38	16	32	53	50	49	53	76	558
§ Glamorgan ..3	Swansea (Victoria Park) .....	Hyet.	28	57	119	37	61	44	16	40	54	50	94	66	87	725
§ Brecon .....7	Cray Reservoir .....	Halliwell	1044	105	233	79	106	101	56	82	77	89	167	102	158	1355
§ Flint .....1	Shotwick Aerodrome .....	Hyet.	18	47	133	35	61	78	28	55	67	74	118	69	132	897
§ Anglesey ....	Holyhead (Salt Island) .....	Hyet.	30	..	..	..	..	32	22	50	71	54	80	75	87	..
§ Dumfries.....5	Eskdalemuir Observatory ..	Beckley	794	129	179	65	94	100	49	138	173	152	183	127	195	1584
§ Renfrew .....2	Renfrew Aerodrome .....	Hyet.	36	111	142	49	97	50	28	84	102	135	128	91	155	1172
§ ".....3	Greenock (Prospect Hill) ....	Hyet.	200	140	112	61	91	55	26	105	71	139	130	84	139	1153
§ Argyll .....4	Glenleven (Blackwater Dam)	Hyet.	1072	252	174	75	104	122	105	146	166	188	217	152	213	1914
§ Fife .....3	Leuchars .....	Hyet.	36	50	127	36	48	32	24	40	83	47	43	43	77	650
§ Aberdeen ....2	Aberdeen (King's College) ..	Beckley	48	55	123	35	51	84	29	29	73	62	53	65	114	773
§ Inverness ....3	Laggan (Gergask) .....	Hyet.	870	..	88	37	68	109	46	63	103	87	129	105	86	..
§ Shetland .....3	Lerwick .....	Hyet.	269	113	105	26	41	82	50	45	58	93	69	113	92	887
§ Cork .....7	Cork (University College) ..	Hyet.	66	48	114	73	67	14	5	27	65	30	80	66	55	644
§ Kerry .....3	Valencia Observatory* .....	Beckley	42	53	122	63	60	35	17	57	85	66	89	76	79	802
§ Armagh .....5	Armagh Observatory* .....	Beckley	196	52	98	31	112	49	44	50	110	71	84	91	82	874
§ Londonderry ..5	Glenedra Lodge .....	Hyet.	950	157	145	118	133	112	82	90	170	158	173	139	163	1640

\* Monthly values are for period ending 24 h. on last day.



Table XIII.—*Mean Rate of Rainfall per hour during 1923.*

County and River Division.	Station.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Year.
		ins. per hr.	ins. per hr.	ins. per hr.	ins. per hr.	ins. per hr.	ins. per hr.	ins. per hr.	ins. per hr.	ins. per hr.	ins. per hr.	ins. per hr.	ins. per hr.	ins. per hr.
§ London	St. Pancras (Camden Square)	.042	.043	.051	.039	.070	.040	.120	.067	.044	.070	.052	.042	.056
§ Surrey	Croydon Aerodrome	.046	.047	.037	.044	.058	.024	.111	.100	.055	.072	.055	.031	.054
§ "	Richmond (Kew Observatory)	.040	.036	.042	.035	.046	.029	.128	.067	.049	.070	.051	.032	.050
§ Kent	Lymington Aerodrome	.046	.051	.050	.039	.063	.042	.062	.078	.061	.061	.055	.036	.050
§ "	Grain	.036	.036	.033	.038	.052	.031	.061	.083	.072	.062	.055	.029	.046
§ Sussex	Eastbourne (Motcombe Gdns.)	.043	.040	.040	.033	.055	.046	.170	.102	.105	.088	.075	.045	.062
§ Hampshire	Calshot	.034	.042	.037	.041	.045	.029	.046	.063	.060	.055	.049	.038	.046
§ "	Andover	.039	.036	.045	.044	.026	.012	.033	.041	.049	.062	.048	.035	.041
§ "	Petersfield (Stoner Hill)	.060	.075	.055	.070	.053	.067	.082	.120	.105	.093	.079	.055	.073
§ "	South Farnborough	.048	.033	.035	.040	.041	.026	.056	.066	.064	.058	.050	.035	.043
§ Middlesex	Palmer's Green (Broomfield Pk.)	.039	.043	.048	.052	.057	.028	.112	.063	.044	.060	.053	.046	.052
§ Herts.	Harpden (Rothamsted)	.041	.038	.035	.036	.047	.025	.120	.075	.070	.058	.045	.037	.049
§ "	Hitchin (Chiltern Road)	.032	.036	.037	.050	.136	.028	.121	.085	.060	.049	.043	.036	.047
§ Suffolk	Ipswich (Rookwood, Copdock)	.034	.044	.031	.034	.046	.034	.077	.084	.069	.060	.067	.035	.048
§ S. Devon	Plymouth (Cattewater)	.031	.053	.040	.038	.044	.022	.042	.069	.069	.051	.036	.045	.046
§ "	Plymouth (The Hoe)	.035	.055	.039	.039	.042	.031	.042	.072	.073	.052	.036	.042	.047
§ "	Plymouth (Freedom Park)	.043	.067	.054	.041	.044	.035	.039	.069	.086	.054	.054	.069	.057
§ Cornwall	Falmouth Observatory	.041	.070	.047	.044	.048	.028	.040	.063	.061	.047	.059	.040	.051
§ Gloucester	Cirencester (Dollarward House)	.050	.042	.043	.037	.037	.048	.060	.057	.050	.050	.054	.047	.047
§ Stafford	West Bromwich	.049	.054	.055	.066	.072	.036	.112	.071	.062	.056	.058	.047	.061
§ "	Ashbourne (Mayfield House)	.039	.047	.053	.052	.050	.030	.083	.061	.058	.041	.056	.037	.050
§ Lincoln	Cranwell	.037	.032	.041	.035	.051	.038	.099	.047	.052	.043	.036	.027	.042
§ Nottingham	Nottingham (Trent Lane)	.052	.045	.052	.070	.055	.031	.115	.073	.063	.037	.046	.043	.056
§ "	Worksop (Hodsock Priory)	.041	.043	.049	.050	.064	.036	.089	.077	.057	.049	.047	.037	.052
§ Cheshire	Birkenhead (Bidston Observatory)	.025	.034	.034	.045	.034	.011	.049	.043	.044	.041	.045	.035	.038
§ S. Lancs.	Blundellsands (Myra)	.038	.049	.042	.047	.052	.041	.075	.067	.062	.056	.048	.048	.052
§ "	Bolton (Queen's Park)	.046	.051	.049	.075	.051	.027	.084	.077	.063	.058	.065	.039	.055

Table XIII.—Mean Rate of Rainfall per hour during 1923—(con.).

County and River Division.	Station.	Jan. Feb. Mar. Apr. May June July Aug. Sept. Oct. Nov. Dec. Year.											
		ins. per hr.	ins. per hr.	ins. per hr.	ins. per hr.	ins. per hr.	ins. per hr.	ins. per hr.	ins. per hr.	ins. per hr.	ins. per hr.	ins. per hr.	ins. per hr.
C. Lancs. ....2	Leyland (Worden Hall) .....	.038	.046	.036	.062	.047	.024	.072	.066	.049	.064	.040	.051
§ " ....3	Southport (Hesketh Park) .....	.043	.049	.045	.055	.045	.032	.076	.074	.064	.067	.047	.057
§ N. Lancs. ....4	Lancaster (Greg Observatory) .....	.047	.053	.040	.057	.051	.029	.071	.071	.061	.071	.040	.055
§ W.R. Yorks. ....9	Haworth (Lower Laithe Res.) .....	.042	.045	.042	.063	.057	.042	.063	.055	.054	.063	.041	.052
" ....9	Earby (Sewage Works) .....	.056	.044	.070	.075	.068	.052	.186	.109	.097	.109	.066	.079
" ....9	Skipton (Town Hall) .....	.026	.036	.037	.035	.038	.024	.048	.040	.042	.040	.035	.038
§ N.R. Yorks. ....2	Felixkirk (Mt. St. John), <i>Halliwell</i> .....	.047	.050	.046	.058	.051	.046	.082	.069	.060	.062	.039	.054
§ " ....2	Felixkirk (Mt. St. John), <i>Hyet. (182)</i> .....	.057	.056	.049	.070	.056	.054	.090	.069	.064	.059	.045	.060
§ " ....2	Felixkirk (Mt. St. John), <i>Hyet. (98)</i> .....	.055	.053	.050	.072	.057	.054	.088	.069	.065	.059	.047	.061
§ " ....2	Felixkirk (Mt. St. John), <i>Casella</i> .....	.048	.046	.046	.063	.056	.052	.085	.064	.057	.056	.039	.054
§ Glamorgan ....3	Swansea (Victoria Park) .....	.062	.070	.066	.055	.078	.053	.088	.095	.074	.066	.071	.060
§ Brecon ....7	Cray Reservoir .....	.051	.071	.044	.051	.048	.030	.057	.089	.074	.069	.068	.040
§ Flint ....1	Shotwick Aerodrome .....	.033	.029	.020	.030	.040	.014	.054	.038	.038	.033	.036	.034
§ Anglesey ....	Holyhead (Salt Island) .....	..	..	..	..	.038	.032	.058	.063	.074	.058	.063	..
§ Dumfries ....5	Eskdalemuir Observatory .....	.043	.035	.037	.046	.036	.043	.039	.060	.047	.052	.049	.043
§ Renfrew ....2	Renfrew Aerodrome .....	.035	.030	.030	.038	.030	.035	.039	.048	.045	.038	.033	.035
§ " ....3	Greenock (Prospect Hill) .....	.059	.065	.054	.052	.055	.073	.045	.107	.084	.072	.065	.063
§ Argyll ....4	Glenleven (Blackwater Dam) .....	.064	.054	.056	.050	.035	.047	.059	.063	.060	.073	.050	.055
§ Fife ....3	Leuchars .....	.024	.029	.027	.048	.042	.030	.040	.050	.048	.050	.051	.039
§ Aberdeen ....2	Aberdeen (King's College) .....	.041	.041	.050	.036	.056	.031	.070	.057	.060	.067	.048	.048
§ Inverness ....3	Laggan (Gergask) .....	..	.040	.027	.038	.046	.038	.048	.053	.042	.041	.039	..
§ Shetland ....3	Lerwick .....	.049	.044	.039	.054	.047	.041	.041	.071	.050	.066	.059	.051
§ Cork ....7	Cork (University College) .....	.040	.075	.054	.064	.070	.026	.089	.083	.099	.060	.053	.064
§ Kerry ....3	Valencia Observatory .....	.051	.089	.084	.071	.049	.057	.063	.090	.086	.078	.066	.075
§ Armagh ....5	Armagh Observatory .....	.049	.055	.048	.028	.029	.024	.044	.045	.049	.041	.041	.036
§ Londonderry ....5	Glendra Lodge .....	.042	.048	.035	.037	.031	.031	.036	.046	.046	.047	.039	.040

## 6. HEAVY FALLS IN SHORT PERIODS IN 1923.

Since 1868 a section of *British Rainfall* has been devoted to a discussion of exceptionally heavy falls of rain during comparatively short periods of time. The information utilised is derived in part from the records of autographic gauges, in part from the readings of ordinary gauges. Circumstances make it impracticable to achieve a very high order of accuracy with either method, but by adopting a cautious policy we can obtain results of value. We cannot ascertain which was the smartest shower which fell anywhere in the British Isles during the year, but we can say which was the smartest for which the evidence is good.

Since 1908 intense falls have been classified as "worthy of notice," "remarkable" and "very rare" according as the duration and amount of rainfall came within the limits indicated in the following table or in the corresponding graphs.

Table XIV.—*Limits of Exceptional 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.
6 ....	.20	2.00	.43	4.30	.66	6.60
10 ....	.30	1.80	.65	3.90	1.00	6.00
15 ....	.43	1.72	.87	3.48	1.33	5.32
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
90 ....	1.15	.77	1.89	1.26	2.60	1.73
120 ....	1.23	.61	1.94	.97	2.65	1.33

In Table XV. are given particulars of the falls recorded in 1923 which reached at least the intensity "worthy of notice." In accordance with custom we give the geographical distribution of these falls and show how it compares with the average.\*

\* Intense falls less than .20 in. in amount have not been included this year in Table XV. It is considered that the rate per hour cannot be determined with sufficient precision to warrant the inclusion in the table of these relatively unimportant falls.

*Number of Noteworthy Rains of Two Hours' Duration or less.*

		England and Wales.							British Isles.	Per cent. of records received.
		S.E.	S.W.	N.E.	N.W.	Total.	Scotland.	Ireland.		
Average } ...	1868-1922	15.5	7.2	4.4	2.0	29.1	2.1	1.3	32.5	1.0
1923 ...	...	11	8	0	2	21	1	0	22	0.4

There is of necessity a certain vagueness about these figures. More definite is the information that examination of the autographic records for 20 stations of the Meteorological Office has shown that there were only two occasions in the year when the time for .20 in. was read as 6 minutes or less ; on no occasion was the time for .40 in. at one of these stations less than 15 minutes nor was the time for 1.00 in. ever as short as 1 hour.

The first of these falls " worthy of notice " to occur in 1923 was that on March 31st at Shrewton, on Salisbury Plain. The measurement, .47 in. (rain and hail), was made at the conclusion of the shower, which lasted 15 minutes. This fall was very local, and, indeed, there was but little rain over the south of England on the day in question.

The next report, .56 in. in 15 minutes, at Alfriston, Sussex, on April 11th, refers to a day on which the distribution of pressure was very irregular and thunderstorms occurred at many places.

The thunderstorms of July were the occasions of several falls " worthy of notice." On July 7th at Burford Road, Nottingham, there was a sudden thunderstorm at 19h. G.M.T. ; in 8 minutes 0.49 in. (rain and hail) fell.

The heavy rain near Carrbridge in Inverness-shire, on July 8th, is dealt with in detail on pp. 49-51. No actual rain-gauge measurements are available from the area most affected. The rain associated with the flooding here probably ranks as the most remarkable of the whole year.

Only one fall above the critical rates was reported in connection with the great storm, which lasted for so many hours, in London on the night of July 9-10. This was at Bexley Heath, where the hyetograph record showed that .61 in. fell in 20 minutes from 0h. 45m. to 1h. 5m. on the morning of the 10th.

In the evening of the 10th there were very violent storms. At Hitchin the wind rose from calm to gale force in the course of the 5 minutes preceding 8.30 p.m. The rain followed the squall after a lapse of 7 minutes, and the heaviest rain did not begin until 8.50. The fall between 8.50 and 9.0 was .33 in.

In a thunderstorm the same day at Aberdeen .2 in. fell in a short period, estimated from the autographic record as 5 minutes.

On July 11th, at Bishop's Castle, in Shropshire, .38 in. fell in 9 minutes (the total for the day being .40 in.). The heavy rain was very local. To the south and west of Bishop's Castle there was no rain at all.

On July 12th and 13th there were thunderstorms in Hereford and Gloucestershire. At Ledbury there was a fall "worthy of notice" on each of these days: .75 in. in 30 minutes on the 12th, 1.52 in. in 45 minutes on the 13th. On the former day a fall of .95 in. took place between 8.30 and 9 p.m. at Bourton-on-the-Water, on the Cotswolds, and on the latter .70 in. in 30 minutes at St. Briavels, near Tintern. On July 12th there were also thunderstorms in Staffordshire, where at Mayfield House, Ashbourne, .27 in. fell in 5 minutes.

The exceptionally heavy rainfall\* of July 14th would have provided many entries for our table, but precise information as to the duration of the storm is available from only one station. At Rugeley (Brindley Bank) the time for 4.16 in. of rain was  $4\frac{1}{2}$  hours. There is no precise limit for a "very rare" fall of 4 in. or more, but it is clear that we are justified in using the double asterisk in this case.

On July 15th there were thunderstorms in Norfolk. At Overstrand, near Cromer, Dr. Michael Beverley measured  $1\frac{1}{2}$  in. "after the storm had ceased"; this fell "within half an hour." At Geldeston, near Beccles, 1.30 in. fell in 45 minutes.

On July 31st there was cyclonic rainfall all over the Midlands. Heavy downpours were reported at Whaley Bridge (Mosley Hall), in Derbyshire, 1.10 in. in 30 minutes, and at St. Briavels near Tintern, 1 in. between 5 and 6 p.m.

On August 22nd, at Compton House, near Petersfield, .45 in. of rain fell between 2.30 and 2.45 p.m., the measurement being made "precisely when the downpour showed signs of abating." There were showers the same day all along the south coast, but not in the Thames Valley, though the primary depression with which they were associated was to the northward, the centre being near the Shetlands at the time.

On August 24th the passage of the trough of another depression was marked by heavy falls in Surrey and Kent. At Charterhouse School, Godalming, .80 in. fell from 11.25 to 12.0 (.96 in. in the 24 hours). At Bexley Heath there was a downpour of .39 in. in a few minutes (the time has been estimated from the autographic record as 7 minutes). At the Isle of Grain there was a similar sudden fall (the time for .2 in. is estimated as 5 minutes).

On August 26th the passage of a squall line was marked at Oxford by a very heavy shower about 7 p.m. G.M.T. At Northmoor Road, Oxford, .35 in. fell in 10 minutes.

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\* See page 56.

The fall of  $\cdot 27$  in. in 8 minutes at Palmers Green on August 29th has been estimated from the autographic record.

Table XV.—*Heavy Falls in Short Periods in 1923.*

County and River Division.	Station.	Date.	Amount.		Rate per Hour.
			in.	min.	in.
Stafford .....5	Ashbourne (Mayfield House)	July 12	$\cdot 27$	5	3.2
Kent .....5	Isle of Grain.....	Aug. 24	$\cdot 20$	5	2.4
Aberdeen ...2	Aberdeen (King's College) .....	July 10	$\cdot 20$	5	2.4
Kent .....5	Bexley Heath (Rookwood) ....	Aug. 24	$\cdot 39$	7	3.3
Nottingham..5	Nottingham (Burford Road) ..	July 7	$\cdot 49$	8	3.7
Middlesex ...2	Palmers Green (Broomfield Park)	Aug. 29	$\cdot 27$	8	2.0
Shropshire ..3	Bishop's Castle (Castle St.) ....	July 11	$\cdot 38$	9	2.5
Oxford .....3	Oxford (Northmoor Road) ....	Aug. 26	$\cdot 35$	10	2.1
Hertford ....4	Hitchin (Chiltern Road).....	July 10	$\cdot 33$	10	2.0
Sussex .....5	Alfriston Vicarage .....	Apr. 11	$\cdot 56$	15?	2.2?
Wiltshire ....3	Salisbury Plain (Shrewton) ....	Mar. 31	$\cdot 47$	15	1.9
Sussex .....1	Compton (Compton House)....	Aug. 22	$\cdot 45$	15	1.8
Kent .....5	Bexley Heath (Rookwood) ...	July 10	$\cdot 61$	20	1.8
Norfolk .....3	Overstrand .....	" 15	1.50	30	3.0*
Derbyshire...1	Whaley Bridge (Mosley Hall)..	" 31	1.10	30	2.2
Gloucester .. 7	Bourton-on-Water (Eastfield)..	" 12	$\cdot 95$	30	1.9
Hereford ....2	Ledbury (Underdown) .....	" 12	$\cdot 75$	30	1.5
Gloucester ..1	St. Briavels House .....	" 13	$\cdot 70$	30	1.4
Surrey ....6	Godalming (Charterhouse).....	Aug. 24	$\cdot 80$	35	1.4
Hereford ....2	Ledbury (Underdown) .....	July 13	1.52	45	2.0
Norfolk .....1	Beccles (Geldeston) .....	" 15	1.30	45	1.7
Gloucester ...1	St. Briavels House .....	" 31	1.00	60	1.0
Stafford .... 3	Rugeley (Brindley Bank) .....	" 14	4.16	270	0.92**

\* " Remarkable " fall.

\*\* " Very Rare " fall.

## 7. HEAVY FALLS ON RAINFALL DAYS IN 1923.

In the preparation of this section of *British Rainfall* the rule is followed that every measurement of 2·5 in. or more in the rainfall day shall be mentioned, and also every measurement of 7·5 per cent. of the total for the year. By using the double criterion we draw attention to the falls which are noteworthy when judged by the standard appropriate for the dry districts as well as to the falls which would be remarkable anywhere.\* The maximum fall for the year at any station has been indicated in roman type and other falls in italics.

The limit of 4 in. in the 24 hours was exceeded on nine occasions during the year. Five were registered at usually wet stations during the persistent rains of November 12th and 13th, and the others at fairly dry stations in the July thunderstorms.

<i>County.</i>	<i>Station.</i>	<i>Date.</i>	
Merioneth ..	Blaenau Festiniog (Llechwedd) ..	Nov. 12th, 1923	5·57 in.
"	" " " "	" 13th, 1923	5·14 "
Carnarvon ..	Snowdon (Cwm Dyli) .....	" 12th, 1923	5·09 "
"	" " " .....	" 13th, 1923	4·96 "
Cumberland	Buttermere (Hassness) .....	" 13th, 1923	4·60 "
Sussex.....	Rottingdean (Hillside) .....	July 9th, 1923	4·55 "
" .....	Falmer (Brighton W.W.) .....	" 9th, 1923	4·02 "
" .....	Newhaven (Poverty Bottom W.W.)	" 9th, 1923	4·04 "
Stafford ....	Rugeley (Brindley Bank).....	" 14th, 1923	4·16 "

The number is low ; in 1917 there were no less than 68 falls of more than 4 in. in the British Isles.

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\* A table showing the highest rainfall and highest percentage for each year from 1865 is published in *British Rainfall*, 1921, p. 86. The figures for 1922 were :—

Highest rainfall ..	Argyll, Ardgour House.....	May 15th	5·14 in.
Highest percentage	Yorkshire, Doncaster (Carr House Hospital).	Aug. 7th	16·5%

The Brindley Bank fall is also the one giving the highest percentage of the annual total, viz., 11·6 per cent.

### CHRONICLE.

**January.**—The first entries for the year refer to orographical rain in the Western Highlands. This rainfall was associated with the presence of strong west winds over the whole of the British Isles.

### January 7th.

<i>Inverness.</i>	<i>in. or %</i>	<i>Inverness—con.</i>	<i>in. or %</i>
Loch Quoich (Kinlochquoich).	2·50 1·9	Loch Arkaig (Glen Dessary)	2·57 2·1

Similar conditions prevailed on January 31st and February 1st. The amounts are given for stations having 2·5 in. on either of those days.

County and Station.	January 31st.		February 1st.	
	<i>in.</i>	<i>or %</i>	<i>in.</i>	<i>or %</i>
<i>Glamorgan.</i>				
Treherbert (Tyn-y-waun) .....	·63	0·6	3·18	3·0
Rhondda (Pont Llest Wen R.), 3 .....	·50	0·6	2·75	3·0
Rhondda (Pont Llest Wen R.), 1 .....	·74	0·8	2·80	2·8
<i>Brecon.</i>				
Ystradfellte Reservoir .....	*	*	2·80	3·1
Cardiff W.W. (Cantref R.), No. 2 .....	·57	0·8	2·58	3·4
<i>Carnarvon.</i>				
Snowdon (Cwm Dyli), No. 11 .....	2·72	1·7	·72	0·4
<i>Inverness.</i>				
Loch Quoich (Kinlochquoich) .....	3·30	2·4	2·80	2·1
Loch Quoich (Glenquoich) .....	2·50	1·9	2·29	1·8

**February.**—The heavy rain on several days in February occurred with persistent high pressure over the Baltic Provinces and low pressure over the Atlantic. At such a time a cold current of air from Siberia and a warmer current from the Atlantic are brought together near the English Channel and flow northward side by side. The almost straight isobars on the map suggest a homogeneous stream, whereas in reality there may be dry, cold air over the eastern counties and damp, warm air in the west. If, moreover, the lines of flow are convergent, some of the air must be rising, and that is likely to be the warm, damp air. The rise will be facilitated where the warm current meets high land.

\* Information not available.



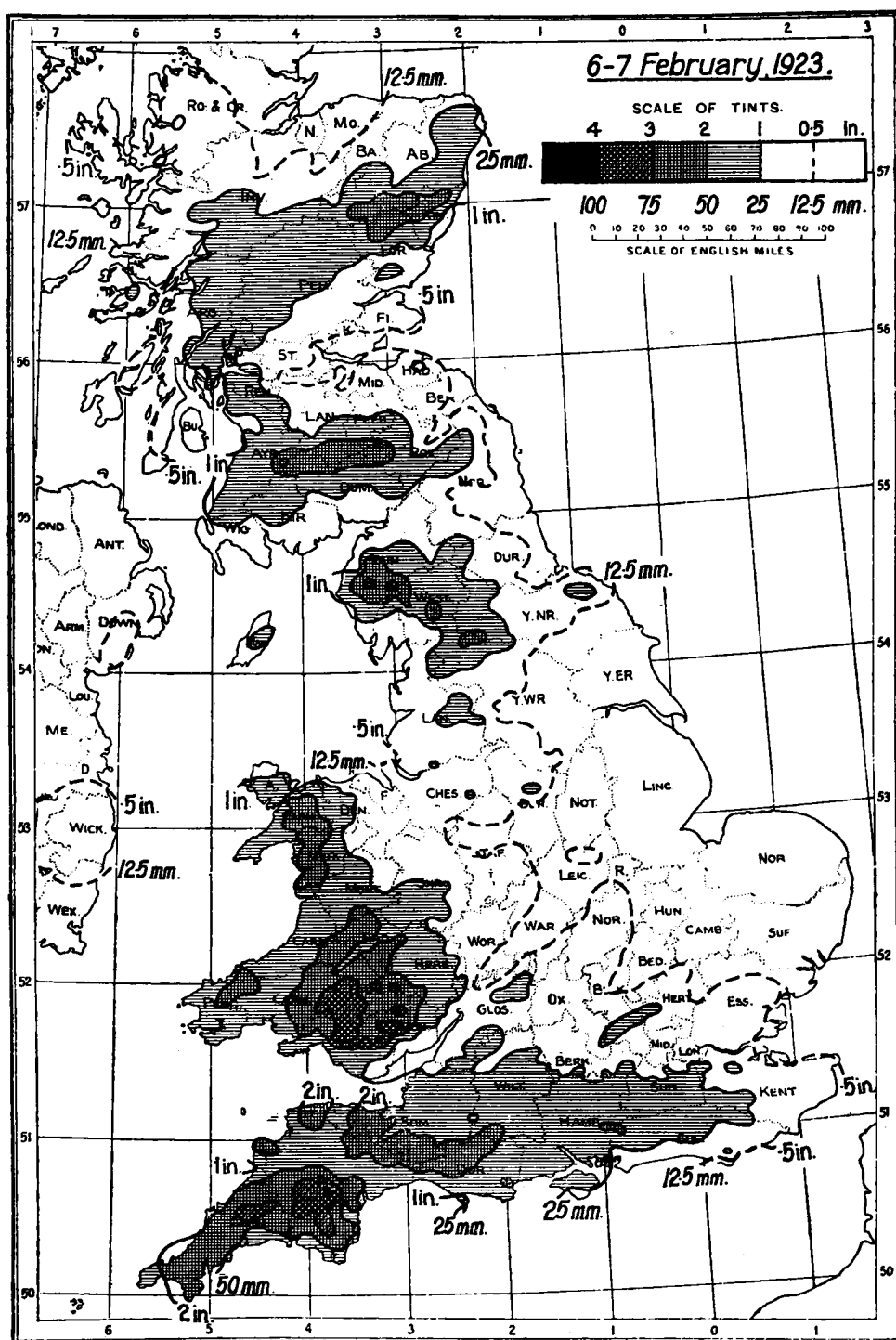
¶ The general distribution of the rainfall of February 5th, 6th and 7th is in accordance with these ideas. We have mapped the rainfall for the 6th and 7th together. Note the heavy rain over Dartmoor and over the Black Mountains in the South of Wales. Over Ireland the rainfall was moderate, presumably because the air supply had been drawn from the North Atlantic and was not so warm or damp as the current striking the south coast of England. It may be noted that the rain worked from N.W. to S.E. In the west of Ireland there were heavy local falls on the 5th, and in Scotland rain was even more prolonged on the 5th than on the 6th or 7th. At Blackwater Dam, near Ben Nevis, 19·7 hours were credited to the 5th, 19·3 to the 6th, and 16·3 to the 7th. At Greenock the corresponding figures were 15·3, 6·8, 2·0. At Eskdalemuir the 6th was the wettest day with 14·4 hours. Over most of England and Wales there was no rain on the 5th. In Breconshire they had 13·4 hours on the 6th and 12·0 on the 7th. At Falmouth the proportion was 9·7 to 14·6. Further east nearly all the rain was credited to the 7th (*see also* p. 34).

In the table the rainfall for three days is shown for each station at which 2·5 in. was credited to the 5th or 6th.

County and Station.	February 5th.		February 6th.		February 7th.	
	<i>in.</i>	or %	<i>in.</i>	or %	<i>in.</i>	or %
<i>S. Devon.</i>						
Christow (Smithacott) ..	·00	—	2·55	5·2	1·71	3·5
Christow (Laployd) ....	·00	—	2·50	4·9	1·76	3·5
<i>Brecon.</i>						
Glyn Neath (P. Neath Vaughan).	*	*	2·58	3·6	*	*
Swansea W.W. (Cray Res.), No. 1.	·00	—	2·55	3·2	1·11	1·4
<i>Argyll.</i>						
Glenleven (Kinlochleven),	2·69	2·4	·93	0·8	·54	0·5
<i>Kerry.</i>						
Kenmare (Sheen Falls) ..	2·56	3·3	*	*	*	*
<i>Mayo.</i>						
Delphi Lodge .....	2·90	2·3	·84	0·7	·53	0·4

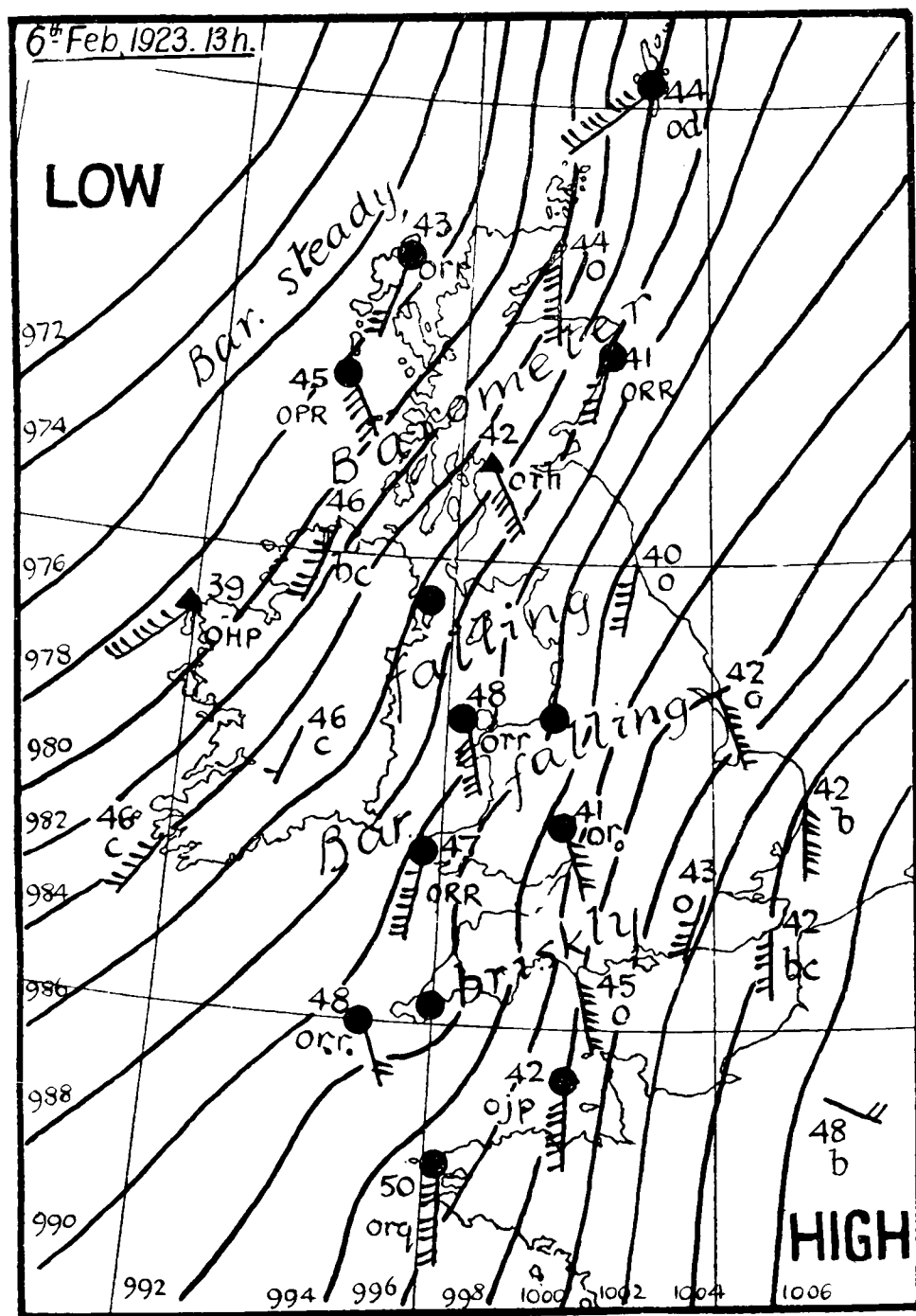
\* Information not available.

The Atlantic depression which dominated the weather map on the 6th and 7th moved northward to Iceland (note how the well-established Continental anti-cyclone seemed to act as a barrier and divert the depression). With the development of another depression off the west of Ireland, the warm current approaching S.W. England was renewed, and there was rain from Cornwall to Central Wales : much of it orographical.



On the 9th more than 1 in. fell over South Wales and over a broad belt stretching from Truro to Salisbury.

On the 10th it was raining in Hampshire for 17 hours out of the 24.



The rainfall for the day was heaviest, however, in N.E. Scotland, where the strong S.E. wind was driving against the Grampian Mountains.

**February 10th.**

*Aberdeen*—Ballater (Irrigation Farm)..... 2·57 in. or 6·2 per cent.

On February 26th and 27th a deep depression moved from S.W. to N.E. across Ireland, and heavy rainfall occurred generally especially in the south of Ireland and in Wales.

**February 26th.**

<i>Brecon.</i>	<i>in. or %</i>	<i>Cumberland.</i>	<i>in. or %</i>
Trecastle (Blaenauhyddfer)	2·53 3·0	Buttermere (Hassness) ..	2·50 1·7
<i>Carnarvon.</i>		<i>Cork.</i>	
Bethesda (St. Ann's Vicarage).	2·88 3·6	Ballinageary (Inchibeg) ..	2·65 3·0
Bethesda (Penrhyn Quarries).	2·75 3·2	<i>Kerry.</i>	
		Kenmare (Dromore Castle)	2·75 3·4

**April.**—On April 30th there was a south-west wind striking our western coasts, the dampness of the current being shown at the coast stations by drizzle. The orographical rainfall which occurred in central Wales was heavy. At some of the wettest places no measurement for the 30th by itself is available and we have only one reading to quote.

**April 30th.**

*Merioneth*—Blaenau Festiniog (Llechwedd Q.)..... 3·82 in. or 2·7 per cent.

**May and June.**—There are no heavy falls to record in May. The only one in June was at the same station as that of April 30th: the conditions were very similar, the saturation of the air being shown on this occasion by thick sea fog off the mouth of the Channel.

**June 8th.**

*Merioneth*—Blaenau Festiniog (Llechwedd Q.)..... 2·64 in. or 1·9 per cent.

**July.**—The heavy falls of July were all associated with a series of thunderstorms which occurred in the middle of the month. In discussing them we shall make use of articles by Mr. M. A. Giblett and Mr. Spencer Russell in the *Meteorological Magazine* of August, 1923.

The weather at the beginning of July was cool, but a warm spell commenced on Thursday, July 5th, with the simultaneous filling up of a deep depression near Iceland and the growth of an anti-cyclone over the Continent. By the next day a south-easterly current was flowing over the whole kingdom, carrying warm air to the extreme west and north-west coasts. This condition was, however, only transitory. It was followed by the development of a depression west of Ireland and the gradual spreading of south-westerly winds back again over the British Isles. Thus there were two streams of air, a hot, dry one from the Continent, a cooler and damper one from the Atlantic,

uniting to flow from south to north over the British Isles. The boundary between two such streams is likely to fluctuate and to be marked by instability.

The first outburst of thunderstorms occurred early on July 7th along the west coast from Stornoway to the Channel Islands, heavy rain falling before 9 a.m. was credited to the 6th at many places in Devonshire. During the day the line of storms pushed eastward and reached Lancashire and Yorkshire. The same evening there was a severe storm at Nottingham. On the 8th the current from the Atlantic covered the whole of England, and the area of atmospheric instability was found in Scotland, severe storms occurring in the north-eastern counties, the worst being on the north of the Grampians near Carrbridge.

### *Serious flooding at Carrbridge.*

The following quotation from *The Times* of July 10th, 1923, is of interest :—

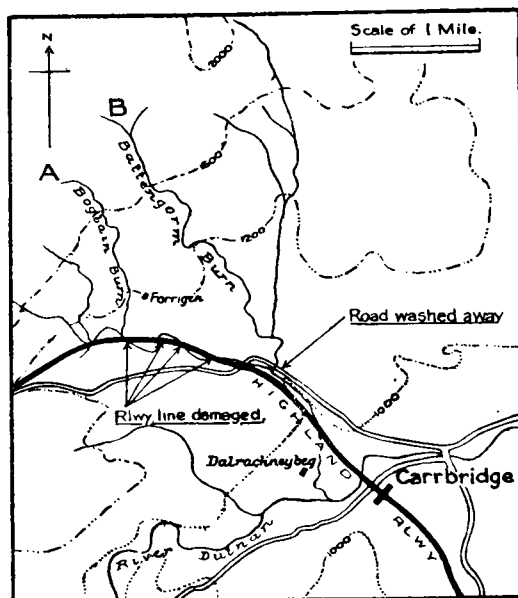
“ On July 8th the most sudden and violent floods within memory in the district wrecked four substantially built bridges, nearly 600 yards of permanent way on high embankments disappeared into the torrent of water, and a stretch of two miles, between Aviemore and Inverness, has been so much damaged that traffic cannot be resumed for at least a month.”

It is noteworthy that floods have occurred in the same locality before, and as a result of that in June, 1914, special measures were taken to guard against the onrush of flood water. The circumstances seem to have been very similar to those of the 1914 storm as the rainfall was confined to a small district.

DR. JAMES HAYES, of Craig Gowan, Carrbridge, has kindly supplied the following information.

There is no description by an eye-witness written at the time. Mr. Lachlan McQueen, the tenant of Forrigen Farm, appears to be the only eye-witness of the beginning of the flood on the hill on the Carr Bridge side. At least equal damage to farms was done in the Findhorn valley : a house and two bridges were washed away, and the Findhorn at Dulsie Bridge, where the river runs through a narrow gorge, rose at an estimate twenty feet. Mr. McQueen saw two clouds come together : lightning and loud thunder were followed by heavy rain and hail. Some hailstones were the usual round shape and the size of the bowl of an ordinary wooden pipe ; others had edges and surfaces and were clear like broken ice. The water came down the hillside gullies in a big rush, “ in a breast ”, 3 to 4 ft. high, and spread out as it reached the more level ground. At the lower end of three gullies a fan of debris is left on former arable land in places 3 to 4 ft. deep. There are large boulders brought down on to Mr. McQueen’s land, some over a ton in weight. Mr. McQueen saw no waterspout, only a fall of heavy rain and hail. He says the water came down

suddenly. He is not very far from the rise of the streams, and on a steep hillside. The flood water which did the damage to railway and road bridges came from two little burns, the Bogbain burn and the Baddengorm. In 1914, the "cloudburst" was only at the source of the Baddengorm. In 1923 it was on the watershed and part came down each of the two burns, and part went down to the Findhorn. It is not possible to estimate the amount of



water that came down, but it was a much larger quantity than in 1914, when the damage was due to blocking of bridges by trees and debris. There were no trees above the first crossing of the Bogbain by the railway. The damage in this flood, i.e. 1923, was caused simply by the great rush of water undermining the embankments, and washing away the soil behind the abutments which then collapsed. The railway runs alongside the Bogbain burn, crossing it several times, and the culverts were either too small or not sufficiently in line with the course of the stream to take the volume of water. The burn had in one length been diverted from its original course to the other side of the railway embankment, and when the flood came it resumed its old course

and gathered in volume south of the line just before the latter crosses the Inverness road. In this one place the flood came on the road, but not owing to any hold up by any blocking of a bridge. The water rushed through under the railway and then spread on the flat ground and joined the swollen stream of the Baddengorm. The Dulnain was not in flood above the junction with the Badden burn, but could be seen at Carr Bridge rising visibly from 4.30 to 5, the rain here having begun about 3.30. My rain-gauge on that date registered 1.64 in., the greater part of which fell during an hour. At Dalrachneybeg, close to the junction of the Badden and the Dulnain, the fields were covered 2 to 3 ft. deep in sand, with large boulders. As my barograph chart shows, there was no variation in barometric pressure at the time of the storm.

My impression is that the storm came travelling in a north direction. Enquiries from various residents here have produced no evidence of anything in the nature of a waterspout.

The following details, which Mr. A. NEWLANDS, Divisional Engineer of the Midland & Scottish Railway Company, has been so good as to supply, will be of interest to engineers.

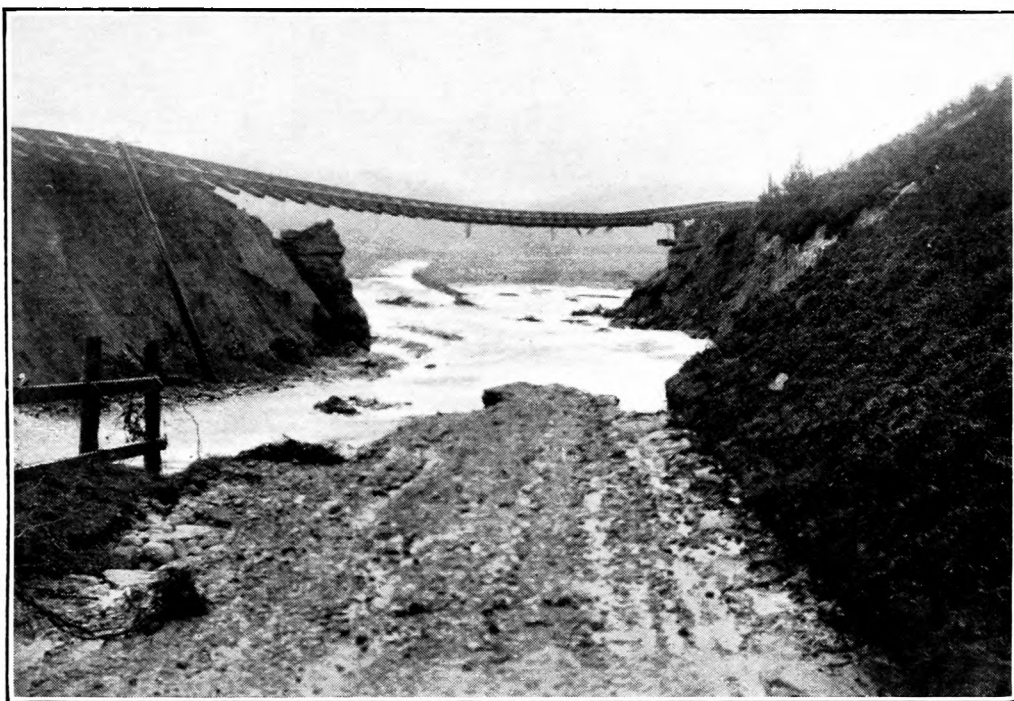
In 1914 the flood water came almost entirely off the drainage area of the Baddengorm and Allt Ruadh Magaig burns, an area of  $3\frac{1}{4}$  sq. miles.

In 1923 an additional drainage area, viz., that of the Bogbain burn extending to  $2\frac{1}{2}$  sq. miles was involved, making in all 6 sq. miles.

The damage done by the cloudburst in 1923 was most manifest on the railway and public road. Bridges 243, 241, 240 and 238\* were all destroyed.

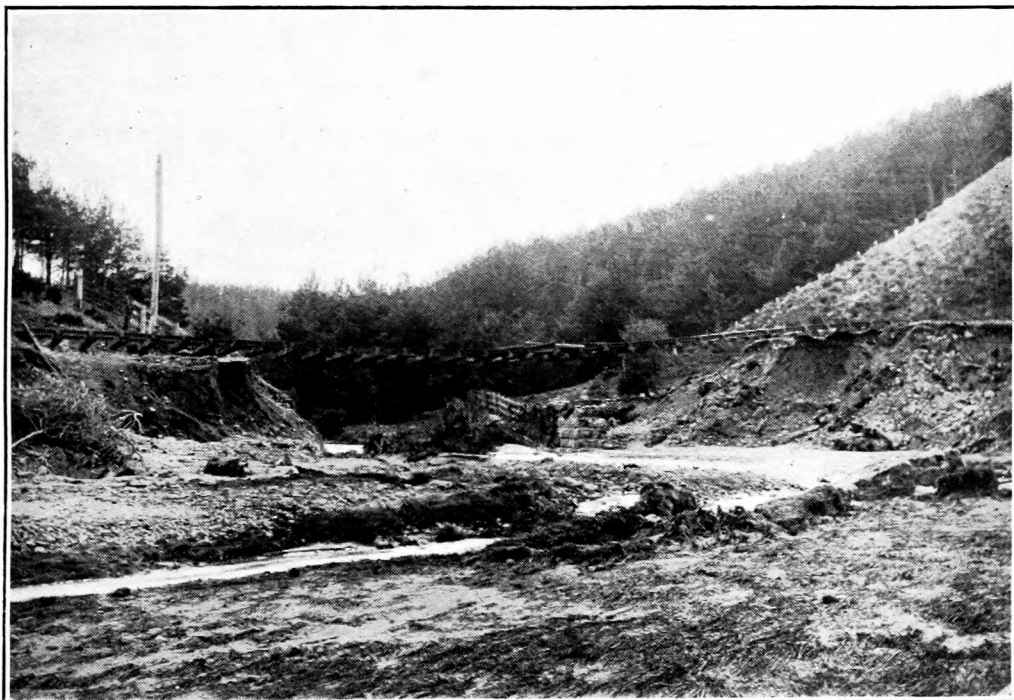
\* The bridges are numbered consecutively, 237 being near the L of HIGHLAND on the sketch map, and 243 where the burn marked A passes under the railway for the first time.

DAMAGE CAUSED BY THE CARRBRIDGE STORM, JULY 8th, 1923.



*A. Ledingham, Photographer.*

Where the Highland Railway crossed the road.



*A. Ledingham, Photographer.*

Where the Railway crossed the Burn.

[Face page 50.]





The spans of these were as follows : (11 ft. 9 in. sq. span-steel troughing), (10 ft. sq. masonry arch), (10 ft. sq. masonry arch), (20 ft. sq. span 35 ft. 2 in. skew span-girders).

239 was silted up but not destroyed ; it was unable to deal with the water flowing in the burn, and the water passed it and went through the railway by the public road bridge No. 238 which was completely destroyed, only a small vestige of one of the wingwalls being left.

Between 237 and 238 where the railway had been constructed over a loop of the original burn and the burn diverted alongside the railway, the water overtopped the railway embankment, which it tore out to a depth of 16 ft. at the loop in its old course.

There are no rainfall records available within the area on which the cloud-burst fell. It is manifest that the maximum discharge was at the watershed, as a tremendous volume of water went northwards to the Findhorn valley and did a great deal of damage there.

Any eye-witnesses who saw the oncoming avalanche of water indicate that it came in the form of a vertical wall which would certainly imply that it was held up at each successive bridge and came forward as the water from a destroyed dam would come, as the bridges went down one after the other.

In 1914 on the other hand, I was told by an eye-witness who saw the Baddengorm road bridge carried away, that the flood water approached that bridge in the form of a vertical wall and this although there was no bridge further up the valley to have created a temporary dam.

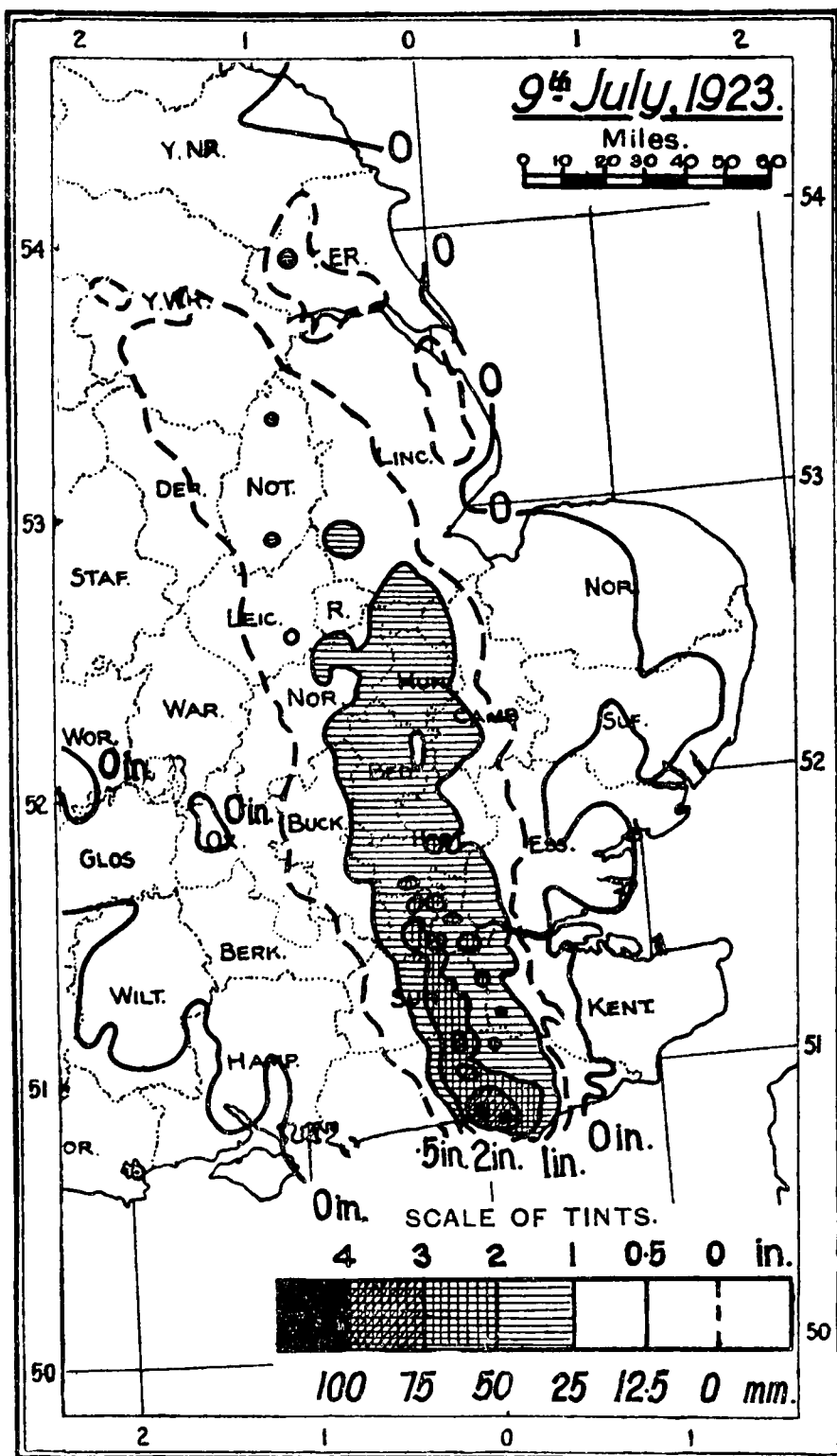
I have not the least doubt that the total rainfall was discharged in a very few minutes, and that to some extent the flood discharge would come in a vertical breast which would of course be accentuated at any temporary check in its course such as a bridge would be.

The REV. R. P. DANSEY writes that the same thing occurred on Cairngorm on the same day, Sunday, July 8th, and that he visited a side stream in Glen Einch. "The main stream above the junction was not affected and the bed was old and undisturbed (though it had had the storm), but I found a huge hole some way up the side stream, 10 ft. deep and 20 ft. wide, evidently caused by a waterspout, as 50 yards above this point the stream was so insignificant that the heather met over it, yet it had sent down hundreds of tons of sand, rock, etc., into the main stream half a mile distant." One can hardly speculate as to the mechanism by which such a crater could be dug out.

### *A great all-night thunderstorm.*

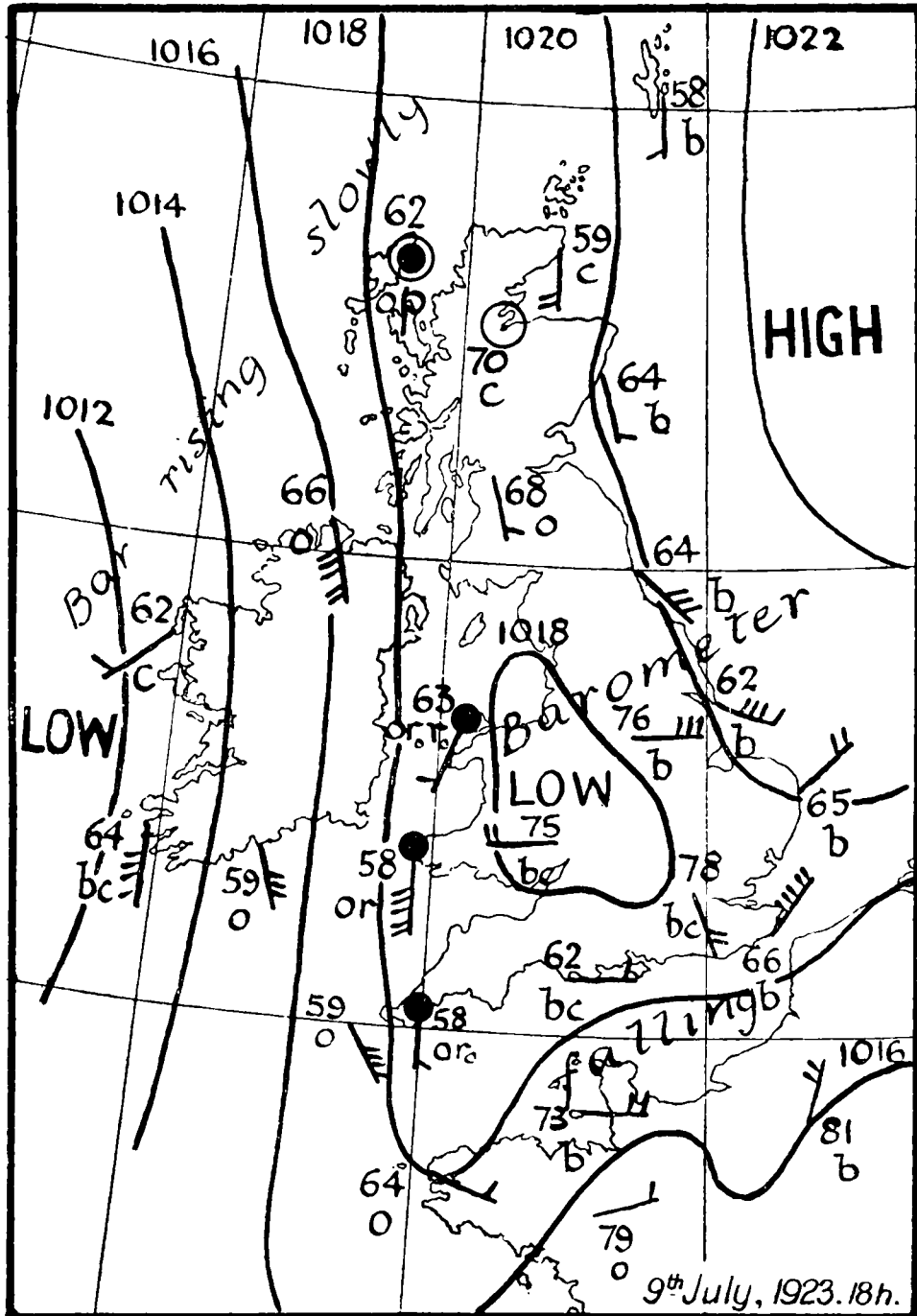
A second series of storms occurred during the period from the evening of the 9th to the morning of the 11th. This time the theatre of operations was the eastern portion of England and of Scotland, and the series opened late on the 9th with a memorable all-night storm, which affected London and of which some details are given below. The storm developed when the current from the Atlantic was losing strength and the European current was spreading westwards from the North Sea.

A map of the rainfall of July 9th is given below. As much as



Rainfall, 9th July, 1923.

1 in. of rain fell over a narrow strip stretching from Grantham to Brighton and Eastbourne. In Sussex more than 3 in. fell over a large area. The long list of falls over 2.5 in. or 7.5 per cent. are given below. The fall of 4.55 in. at Rottingdean, 4.04 in. at Newhaven, and 4.02 in. at Falmer are the largest.



Pressure Distribution, 9th July, 1923, 18h.

## July 9th.

<i>London.—</i>			<i>London—continued.</i>		
	<i>in. or %</i>			<i>in. or %</i>	
<i>Bermondsey.</i>			<i>Chelsea.</i>		
Shad Thames Pumping Stn.	1.75	8.1	Lots Rd. Pumping Stn...	1.72	7.9
<i>Lambeth.</i>			Western Pumping Station	1.80	7.8
Brockwell Park .....	2.21	7.7	Physic Garden.....	1.75	7.5
<i>Battersea.</i>			<i>Westminster.</i>		
Battersea Waterworks ..	1.83	7.6	King's Scholars' Pond....	1.90	8.1
Nine Elms (Heathwall) ..	1.68	8.6	St. George's Square.....	1.83	7.6
<i>Wandsworth.</i>			Buckingham Palace ....	1.93	7.7
Putney Heath Reservoir..	1.93	7.9	St. James's Park.....	2.00	8.4
Southfields (Coronation Gs.)	2.12	9.2	Hyde Park .....	1.78	8.1
Southfields (Wincanton Rd.)	2.12	8.5	Spring Gardens .....	1.95	8.0
<i>Camberwell.</i>			<i>Hampstead.</i>		
Nunhead (Southwark W.W.)	2.07	8.9	New End Square.....	2.67	8.6
<i>Deptford.</i>			Golder's Hill.....	1.95	7.5
Telegraph Hill .....	1.78	7.7	<i>St. Pancras.</i>		
Water Works .....	1.89	8.2	Camden Square .....	2.10	7.8
<i>Greenwich.</i>			<i>Holborn.</i>		
Deptford Pumping Station	1.80	8.0	Stone Yard .....	1.73	8.9
<i>Lewisham.</i>			<i>Finsbury.</i>		
Clarendon Road .....	2.02	7.7	New River Head.....	2.04	8.7
<i>Kensington.</i>			<i>City of London.</i>		
Holland House.....	1.88	7.6	Guildhall .....	1.70	7.9
<i>Fulham.</i>			<i>Woolwich.</i>		
Acfold Road .....	1.88	8.1	N. Woolwich Pumping Stn.	1.65	7.5
Hammersmith Cemetery .	1.97	7.9	Barking Outfall .....	1.61	7.7
<i>Surrey.</i>			<i>Surrey—continued.</i>		
Chipstead (Eyhurst).....	2.67	7.2	Epsom (Sewage Farm) ..	2.37	8.6
Tadworth (Glade House)..	2.53	7.2	Surbiton(Worthington Rd.)	2.72	8.8
Banstead (Burgh Heath)..	2.80	7.7	Surbiton (Seething Wells)	2.25	8.6
Mitcham (Brook Cottage)	2.75	10.9	Surbiton(Sew.Dispsl.Wks.)	2.38	9.8
Wimbledon (Trinity Road)	1.95	7.6	Norbiton (Wolverton Ave.)	2.44	8.1
Wimbledon (Sewage Wks.)	2.10	9.3	New Malden (Sew. Wks.)	2.91	11.4
Lowfield Hth. (Huntsgreen)	2.75	6.7	Kingston (County Hall)..	2.48	9.2
Redhill (Station Road) ..	2.47	7.5	Kingston (Grammar Schl.)	2.85	10.3
Reigate (Thurso) .....	2.46	8.2	Kingston (Sewage Works)	2.38	8.6
Reigate (Northcote).....	2.66	7.6	Raynes Pk.(W.Barnes P.S.)	1.91	8.8
Reigate (Laglands) .....	2.53	7.3	Richmond (The Terrace)..	2.07	8.1
Epsom (The Durdans)....	2.51	7.4	Kew (Roy.Botanic Gdns.)	2.05	8.4
Epsom (Hylands Road) ..	2.37	7.8	Barn Elms .....	2.03	8.1
<i>Sussex.</i>			<i>Sussex—continued.</i>		
Rottingdean (Hillside)....	4.55	11.3	Haywards Hth.(Pddk.Hall)	3.65	9.9
Brighton W.W.(Lewes Rd.)	2.98	7.3	Ardingly (Lywood House)	2.74	7.2
Brighton W.W.(Race Hill R.)	3.12	7.3	Ardingly (Wakehurst Pl.)	2.62	6.5
Brighton (Moulscombe) ..	2.96	7.3	Balcombe (The Gables) ..	3.18	7.7
Falmer (Brighton W.W.)..	4.02	9.7	Balcombe (Stockcroft) ..	3.34	8.1
Cuckfield (Henmead Hall)	2.60	6.6	Balcombe (Waterworks)..	2.75	6.7
Seaford College.....	2.10	8.8	West Dean .....	2.50	6.5
Seaford (Bowden Ho. Schl.)	3.41	9.3	Jevington (Church Farm)	2.58	6.9
Seaford (Newlands) .....	3.21	9.9	Litlington(Plough & Hrrw.)	2.91	7.2
Newhaven (Poverty Bttm.)	4.04	10.6	Alfriston .....	3.04	—
Lewes (Little Dene).....	3.75	8.1	Coleman's H. (Holly Hill)	2.58	6.6
Lewes W.W. (Kingston)..	3.68	8.1	Worth (Worth Lodge)....	3.18	8.5
Haywards Hth. (Gower Rd.)	3.60	10.0	Crawley (The Beeches) ..	2.94	7.8

<i>Middlesex.</i>			<i>Middlesex—continued.</i>		
Hampton .....	1.98	7.9	Willesden Reservoir .....	1.90	7.5
Twickenham (Sewage Wks.)	2.56	9.5	Willesden (Stonebdg. Fm.)	2.03	7.9
Hounslow (St. Stephen's Vic.)	2.25	8.7	Sudbury (Station Appr.)	1.93	7.5
Isleworth (Mandeville Ho.)	2.36	8.0	Harrow (Oakhurst) .....	2.17	8.4
Ealing (Webster Gardens)	2.14	8.4	Harrow (Bessborough Rd.)	2.18	7.6
Ealing (Longfield Avenue)	2.03	8.9	Hendon (Central School) ..	3.01	10.3
Ealing (St. Stephen's Rd.)	2.19	8.3	Wealdstone (Kodak Wks.)	2.06	8.0
Ealing (Hanger Hill Res.)	2.05	7.6	Wealdstone House .....	2.10	8.7
Perivale (Nrthrn. Sew. Fm.)	2.33	8.3	Hatch End (Royston Pk.)	2.32	7.7
			Muswell Hill (Page's Lane)	2.80	9.5
<i>Hertfordshire.</i>			<i>Cambridgeshire.</i>		
Hatfield (Surveyor's Office)	2.41	8.6	Wimpole Hall .....	1.77	8.3
<i>Essex.</i>			<i>Essex—continued.</i>		
Leyton (Town Hall) .....	1.86	7.9	East Ham Well .....	1.63	7.8
East Ham (Central Park)	1.83	7.9	Manor Pk. (London Cem.)	2.00	9.3

The number of lightning flashes during this storm was observed at Chelsea by Mr. Spencer Russell, from whose account in the *Meteorological Magazine* we take the following figures :—

Time.			Number of Flashes.	Average per Minute.	Maximum Number in One Minute.
July	9th	22h.-23h. ....	600	10	17
"	9th	23h.-24h. ....	1,540	26	47
"	10th	24h.-1h. ....	1,327	22	33
"	10th	1h.-2h. ....	1,129	19	30
"	10th	2h.-3h. ....	1,008	17	28
"	10th	3h.-4h. ....	1,320	22	37
6 hours .....			6,924	19	47

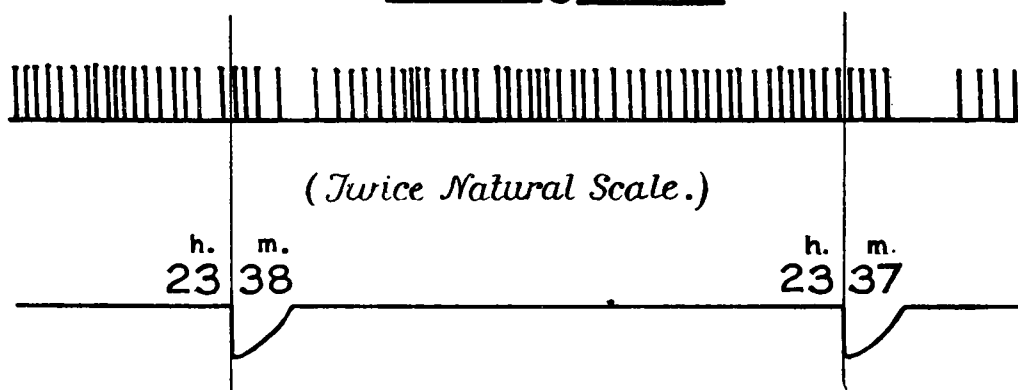
Mr. Spencer Russell was using the brontometer, an instrument made by Richard Frères for G. J. Symons\* for recording thunderstorm phenomena. The instrument has several pens, but on this occasion Mr. Russell was using only two, the one which records the minutes automatically and the one which is moved by a key operated by the observer when lightning occurs. The crowding of the flashes is well shown by the part of the record which is reproduced. The contrast with the records for the storm of June 4th, 1908, reproduced with a note by W. Marriott in the *Quarterly Journal of the Royal Meteorological Society*,† is striking. Marriott states that the thunderstorm of June 4th, 1908, "was not only a very severe one, but it

\* *Royal Society Proceedings*, Vol. 48, p. 59, 1890.

† *Q.J.R. Met. Soc.*, Vol. 34, 1908, p. 207. It appears that this is the only storm for which brontometer records have been published.

afforded almost exceptional opportunity for obtaining records on the brontometer." Nevertheless, his total for 28 minutes was only 98 flashes.

## Brontometer Record at Chelsea, 9<sup>th</sup> July, 1923.



Of the remaining storms during this phase, those which occurred in the area round London on Tuesday evening, July 10th, deserve mention. Unlike the storm of the previous night, these were preceded by a violent squall of wind. The storm was very violent in the Windsor area and the Lower Chapel of Eton College was struck.

Considerable changes in the distribution of air currents occurred in the next day or two, so that the storms of July 12th and July 14th fall in a different category. As far as we can see, both these storms may be attributed to instability produced by local convection in air with little general movement. In both cases the areas with more than an inch of rain were small, and at no great distance away from the centres of heavy rain, no rain fell at all. On the 12th a "col" between depressions centred in Iceland and the Bay of Biscay was over the Midland Counties. Thunderstorms developed along the line from Bridgnorth to Pontefract in the course of the afternoon and evening. The heaviest rain was near Rotherham, where more than 3 in. fell and hailstones were reported "as big as marbles."

### July 12th.

<i>W.R. Yorkshire.</i>			<i>W.R. Yorkshire—contd.</i>		
	<i>in.</i>	<i>or %</i>		<i>in.</i>	<i>or %</i>
Darnall (High Hazells Mus.)	2.55	8.6	Rotherham (Sitwell Vale)	3.30	10.9
Rotherham (Ulley Res.)	2	2.67	9.9	Rotherham (Moorgate	3.07
Rotherham (Ulley Res.)	3	2.95	11.2	Grange).	10.8

On the 14th, pressure was very uniform over the British Isles, very shallow depressions being indicated on the morning map. A severe storm occurred in North Staffordshire. At Brindley Bank, Rugeley, the fall amounted to no less than 4.16 in. The observer reports that this large amount fell in  $4\frac{1}{2}$  hours. At Erdington, Birmingham, the

observer writes "we had a heavy thunderstorm with torrential rain and my gauge was overflowing. I actually measured 3·00 in., but am sure a lot more fell." He estimates 1 in. in addition ; this would make the fall for the day 4 in. or 8·1 per cent.

**July 14th.**

<i>Stafford.</i>	<i>in. or %</i>	<i>Warwick.</i>	<i>in. or %</i>
Rugeley (Longdon) . . . . .	3·83 11·2	Birmingham (Erdington)	3·00? 6·2
Rugeley (Brindley Bank) ..	4·16 11·6		
Shugborough . . . . .	3·05 7·9		

The end of the warm spell and the thundery conditions came on Sunday, July 15th, when a general change set in which resulted in the establishment of a "westerly type" over the British Isles.

From the middle of July onwards there was persistent west wind and wet weather in the west of Scotland. Over a large area the heaviest rain was on the 22nd. On that day as much as 1 in. of rain fell over the greater part of the Western Highlands, but along the east coast of Scotland practically no rain fell.

**July 22nd.**

<i>Dumbarton.</i>	<i>in. or %</i>	<i>Argyll—continued.</i>	<i>in. or %</i>
Glen Finlas Reservoir . . . .	2·82 2·6	Loch Fyne (Brenchoillie)	2·50 2·8
<i>Argyll.</i>		Loch Eck (Benmore) . . . .	2·74 2·4
Corran Lighthouse . . . . .	2·58 2·6	Lochgoilhead (Ardgoil) ..	2·85 2·6
Ardgour House . . . . .	2·84 2·4	<i>Inverness.</i>	
Glenleven (Kinlochleven) .	2·68 2·4	Kinlochleven (Kinloch-	2·72 2·4
Crarae (Kennels) . . . . .	3·47 3·4	more Lo.).	

On July 31st there was a shallow depression over Scotland. Heavy rain occurred over a limited area in the Grampians. At a good many stations the amount exceeded 1 in.

The same evening there was a good deal of rain in the eastern half of England. The heaviest showers occurred near Leicester.

**July 31st.**

<i>Leicester.</i>	<i>in. or %</i>	<i>Inverness.</i>	<i>in. or %</i>
Ratcliffe College . . . . .	2·04 7·8	Aviemore (Rothiemurchus)	2·93 8·1
Burton on the Wolds . . . .	2·14 8·0		

**August.**—The passage of a deep depression across Ireland and Scotland from S.W. to N.E. during August 2nd was the occasion of heavy rainfall in the Lake District.

**August 2nd.**

<i>Cumberland.</i>	<i>in. or %</i>	<i>Westmorland.</i>	<i>in. or %</i>
Watermillock (Mell Fell Ho.)	2·50 4·1	Patterdale (Greenside	2·77 2·4
Buttermere (Hassness) . . .	3·85 2·6	Mine).	
Keswick (Derwent Island)	3·31 4·3	Dungeon Ghyll . . . . .	2·50 1·6
Keswick (The Bank) . . . .	2·97 4·1	Grasmere (The Wray) . . .	2·68 2·2
Threlkeld (Blencathra San.)	3·00 3·5		

On August 8th and early on the 9th there was persistent rain over northern Ireland and S.W. Scotland. The heaviest rainfall was in the latter district. This was another instance in which a warm, damp current produced fog over the sea (the Irish Sea) and precipitation over the hills.

#### August 8th.

<i>Kirkcudbright.</i>	<i>in. or %</i>	<i>Dumfries.</i>	<i>in. or %</i>
Borgue (Senwick Ho.)....	2·55 5·3	Dalton (Kirkwood).....	2·67 4·1
Dalbeattie (Southwick Ho.)	2·77 4·7		

The rain of August 14th and 15th occurred in very interesting circumstances. On the morning of the 14th there was but little air movement over England; the air was warm and damp, having come from the warmer parts of the Atlantic. In the course of the day a depression approached the north of Scotland from Iceland, the west wind over Scotland strengthened and a flow of cooler air set in over England. The rain with which we are concerned fell mostly in two belts of country which may be regarded as representing the position of the "cold front." In the first of these belts, between Spurn Head and Derby, the rain fell in the late afternoon (it began at Spurn Head at 16h. 30m. G.M.T. and continued mostly as drizzle until morning). In the southern belt, from Oxford to Gorleston, the heavy rain came much later. At Oxford (Radcliffe Observatory) there was heavy rain from 23h., which developed into a thunderstorm after half an hour. At the other end of the belt the storm did not arrive until 3h. 30m.

A closer diagnosis of the circumstances would be of great interest, but it so happens that the area concerned is not well provided with autographic instruments. We are therefore unable to trace the movement of the cold front across the zone where thunderstorms did not occur. A map showing the distribution of rainfall on August 14th is reproduced.

#### August 14th.

<i>Cambridge.</i>	<i>in. or %</i>	<i>Suffolk.</i>	<i>in. or %</i>
Fowlmere (Fruit Farm) ..	1·73 8·5	Rumburgh Vicarage ....	2·10 8·6
Whittlesford (Scots).....	2·70 10·4		

On August 23rd and again on August 29th there was cyclonic rainfall over the whole of the British Isles. For each occasion we have one entry. That is the case also with September 3rd, when there was general rain associated with the passage of a "trough" of low pressure across the British Isles from west to east.

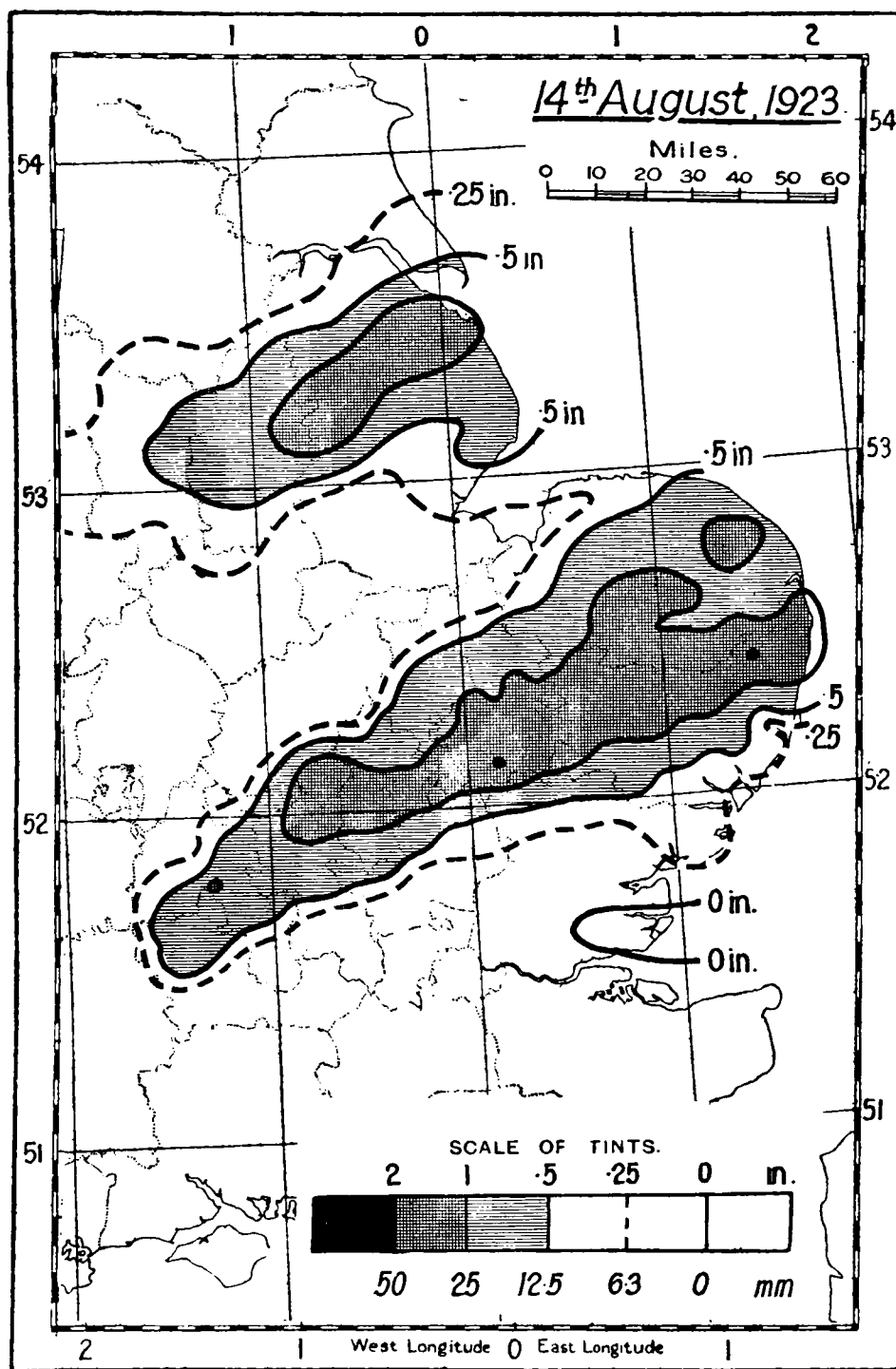
#### August 23rd.

*Carmarthen*—Llanelly (Old Market Yard)..... 2·50 in. or 4·3 per cent.

#### August 29th.

*Glamorgan*—Rhondda W.W. (Llyn Fawr Res.)..... 2·56 in. or 2·5 per cent.





## September.

**September 3rd.**

*Carnarvon*—Pen-y-groes (Nebo School)..... 2·52 in. or 2·2 per cent.

**September 11th.**

*Inverness*—Lochquoich (Kinlochquoich) ..... 3·92 in. or 2·9 per cent.

For September 13th–14th we have to note an example of the way in which the necessity of making observations at a specified hour may exclude considerable falls from the category “Heavy falls on rainfall days.” At Highclere, Devizes, the calendar day, September 13th, was rainless, and little rain occurred before 7 a.m. on the 14th, but from 7 to 9 a.m. the rain fell “with tropical violence”; the total up to 9 a.m. was 1·78 in., another ·78 in. fell before 7 p.m.—2·56 in. in the 12 hours.

September was very wet in the west of Scotland, but the rain was so well distributed through the month that there are comparatively few entries for this section.

In general, the falls were orographical, they occurred where the hills face the west winds: in parts of the east of Scotland the rainfall for the month was below normal.

**September 17th.**

*Lanark*—Leadhills ..... 2·51 in. or 2·9 per cent.  
*Cumberland*—Buttermere (Hassness)..... 3·15 in. or 2·1 per cent.

**September 22nd.**

*Westmorland*—Kentmere Head Reservoir..... 2·90 in. or 2·4 per cent.

On September 27th there was general rainfall over the north of Ireland as well as most of Scotland. It was exceptional at Dunoon, opposite the mouth of the Clyde. At Rothesay, in the Isle of Bute, more than an inch was credited to the 26th, but less than an inch to the 27th. The observer reports, “The rainfall of the 26th fell mostly on the morning of the 27th between 4h. and 8h., and caused a good deal of flooding in the district.” For the rainfall day of the 27th more than an inch of rain fell over the greater part of the highlands of the south and west of Scotland.

For the Dunoon stations we give the amounts for the 26th and 27th. We have no hypothesis to account for the localisation of this precipitation.

**September 27th.**

<i>Argyll.</i>	<i>in. or %</i>	<i>Argyll—continued.</i>	<i>in. or %</i>
Glen Etive.....	2·92 3·2	Mull (Glencannel) .....	3·08 2·1

County and Station.	September 26th.			September 27th.		
	<i>in.</i>	<i>or</i>	<i>%</i>	<i>in.</i>	<i>or</i>	<i>%</i>
<i>Argyll.</i>						
Dunoon (Reservoir) .....	1·12		1·1	3·23		3·1
Dunoon (Redhurst) .....	1·13		1·1	2·59		2·6

**October.**—The rainfall of October 20th was associated with the development of a cyclone off the west of Ireland and its passage to the north of Scotland.

**October 18th.**

*Cumberland*—Buttermere (Hassness) ..... 2·85 in. or 1·9 per cent.

**October 20th.**

<i>Argyll.</i>	<i>in. or %</i>	<i>Inverness.</i>	<i>in. or %</i>
Morvern (Ardtornish) ....	2·56 2·5	Skye (Skeabost) .....	2·61 3·1
Mull (Glencannel) .....	2·72 1·8	<i>Mayo.</i>	
Mull (Knock) .....	2·73 2·7	Dephi Lodge .....	2·54 2·0

October 29th provides another instance of a warm, damp current driving up the Irish Sea and producing orographical rainfall in the Lake District and in Wales.

**October 25th.**

*Cumberland*—Buttermere (Hassness) ..... 2·87 in. or 1·9 per cent.

**October 29th.**

<i>Lancashire.</i>	<i>in. or %</i>	<i>Westmorland—(con.).</i>	<i>in. or %</i>
Coniston (School Garden)	2·86 2·3	Kentmere Head Reservoir	3·30 2·8
Hawkshead (Highfield) ..	2·72 2·5	<i>Carmarthenshire.</i>	
Ambleside (Skelwith Fold)	3·01 2·9	Llyn-y-fan-Fach (Waen Sychlwch).	2·58 2·8
<i>Cumberland.</i>		Llyn-y-fan-Fach (Afon Sychlwch).	2·72 2·8
Buttermere (Hassness) ...	3·34 2·6	<i>Carnarvonshire.</i>	
<i>Westmorland.</i>		Snowdon (Cwm Dyli), No. II.	3·44 2·1
Ambleside (White Craggs)	2·76 2·9	Snowdon (Llydaw Intake)	4·87 2·7
Ambleside (Market Square)	2·81 2·8	<i>Argyll.</i>	
Rydal (The Stepping Stns.)	2·66 2·5	Dunoon Reservoir .....	2·50 2·4
Rydal (The Hall) .....	2·58 2·4	Mull (Glencannel) .....	3·22 2·2
Dungeon Ghyll .....	3·65 2·4		
Grasmere (The Wray) ....	2·79 2·3		
Kentmere (Mags Howe) ..	2·90 2·8		

**November.**—On November 2nd there was general rainfall associated with a depression which moved rapidly from Iceland to the Shetlands. The heaviest falls occurred on the west coast of Scotland and in the Lake District.

**November 2nd.**

<i>Westmorland.</i>	<i>in. or %</i>	<i>Argyll.</i>	<i>in. or %</i>
Rydal (High Close) .....	2·65 2·4	Glen Etive .....	2·78 3·0
Dungeon Ghyll .....	2·90 1·9	Dunoon Reservoir .....	2·50 2·4
Grasmere (The Wray) ....	2·79 2·3	Mull (Glencannel) .....	2·60 1·7
		<i>Inverness.</i>	
		Loch Quoich (Kinloch-quoich).	3·17 2·3

The rainfall credited to November 8th, though it is barely qualified for inclusion in this section, presents some features of interest. The rain (and snow) occurred during the evening of the 8th and morning of the 9th in the eastern counties: as much as an inch of rain fell over a broad coastal belt from North Walsham to Clacton, but the fall reached 1·5 in. only in small areas.

**November 8th.**

*Suffolk*—Stratford St. Mary Rectory .....

1·64 in. or 7·7 per cent

On November 13th there was prolonged rain over the whole of the British Isles, but more especially in North Wales and in Lancashire.

The rain was associated with a deep depression which followed a track passing north of Ireland and across Scotland along the line of the Caledonian Canal. The persistent rain in Lancashire was no doubt partly orographical, it occurred on the windward side of the Pennine Range; an important circumstance was apparently the convergence of the winds, otherwise there seems to be no reason why the orographical rain should not have been as heavy over Ireland which was nearer to the centre of the depression.

In the following table, as in the map, the amounts for the two "rainfall days," November 12th and November 13th, are stated together.†

County and Station.	November 12th.		November 13th.	
	<i>in.</i>	or %	<i>in.</i>	or %
<i>S. Devonshire.</i>				
Holne (Church Park Cottage).....	·03	0·0	2·72	3·6
<i>Lancashire, S.</i>				
Oldham Gas Works .....	1·56	1·8	2·53	4·5
Oldham (Brushes Clough) <i>new G.</i> .....	*	*	2·69	4·5
Rochdale (Spring Mill, Whitworth).....	1·90	2·8	2·50	3·7
Rochdale (Cowm, Whitworth).....	2·14	3·1	2·80	4·0
<i>Lancashire, N.</i>				
Coniston School Garden .....	2·85	2·3	3·01	2·4
Hawkshead (Highfield).....	2·55	2·4	2·26	2·1
Ambleside (Skelwith Fold) .....	2·26	2·1	2·51	2·4
<i>Yorkshire, W.R.</i>				
Ingleton (Kingsdale Head) .....	3·52	3·7	3·30	3·4
Sedbergh (Brigg Flats).....	1·78	2·4	2·69	3·7
Sedbergh (Havera Bank) .....	*	*	2·75	3·7
Slaidburn (Thorneyholme) .....	3·00	4·4	*	*
Slaidburn (Dunsop Houses).....	2·75	3·3	*	*
Slaidburn (Brennand) .....	3·30	3·5	*	*
Slaidburn (Whitendale) .....	2·78	3·0	*	*
Holmbridge (Yateholme Reservoir) .....	1·50	2·1	2·70	3·8
Walsden (Ramsden Reservoir) .....	1·85	2·8	2·83	4·3
Oughtershaw Hall.....	3·56	4·1	1·29	1·5
<i>Cumberland.</i>				
Buttermere (Hassness).....	3·47	2·3	4·60	3·1
<i>Westmorland.</i>				
Dungeon Ghyll .....	2·75	1·8	3·27	2·1
Grasmere (The Wray) .....	2·65	2·2	2·37	1·9
Killington Reservoir.....	1·75	2·8	2·81	4·5
Kentmere Head Reservoir .....	2·54	2·1	1·30	1·1
<i>Monmouthshire.</i>				
Pant-y-reos Reservoir .....	·52	0·9	3·23	5·5
Cwmbran (Pant-y-berllan) .....	·40	0·8	2·56	5·1
<i>Glamorgan.</i>				
Tstalyfera (Wern House) .....	1·36	1·7	2·52	3·2
Pontycymer (Garw Sec. School).....	*	*	2·60	3·9
Glyncorwg Colliery.....	1·85	1·8	2·58	2·6
Pontypridd (Lan Wood Res.) .....	·58	0·9	2·57	4·2
Treharris Service Reservoir.....	·40	0·7	3·00	5·1
Mountain Ash (Darranlas Res.) .....	·43	0·7	3·30	5·0

\* Information not available.

† For map see p. 64.

County and Station.	November 12th.		November 13th.	
	<i>in.</i>	or %	<i>in.</i>	or %
<i>Glamorgan—(con.)</i>				
Treherbert (Tyn-y-waun).....	1·32	1·3	3·56	3·4
Rhondda (Pont Lluest Wen R.), 3.....	1·01	1·1	3·07	3·4
Rhondda (Pont Lluest Wen R.), 2.....	1·51	1·7	2·95	3·4
Rhondda (Pont Lluest Wen R.), 1.....	1·82	1·9	3·53	3·6
Rhondda W.W. (Llyn Fawr Res.) .....	1·45	1·4	3·92	3·8
<i>Carmarthenshire.</i>				
Llyn-y-fan Fach (Waen Sychlwch).....	1·51	1·7	3·04	3·3
Llyn-y-fan Fach (Llethr-y-Llyn) .....	1·25	1·5	2·52	3·0
Llyn-y-fan Fach (Afon Sychlwch) .....	1·57	1·6	3·14	3·2
<i>Brecon.</i>				
Swansea W.W. (Nantyrwydd), No. 2.....	1·30	1·4	2·59	2·7
Ystradfellte Reservoir .....	*	*	3·04	3·4
Swansea W.W. (Cray Res.), No. 1 .....	·90	1·1	2·56	3·2
Trecastle (Blaenau-Hydfer).....	·68	0·8	2·77	3·3
<i>Merioneth.</i>				
Tan-y-bwlch (Dol-y-Moch).....	2·70	2·8	*	*
Blaenau Festiniog (Llechwedd Q.).....	5·57	3·9	5·14	3·6
Trawsfynydd Camp .....	1·44	1·6	2·78	3·1
<i>Carnarvon.</i>				
Bettws Garmon.....	3·10	3·6	(2·50)	2·9
Bryn Bras (Castle Gardens).....	2·54	3·7	1·42	2·1
Penisarwaen (Meillionydd) .....	2·70	4·2	1·41	2·2
Bethesda (St. Ann's Vicarage).....	2·87	3·3	2·36	3·0
Bethesda (Penrhyn Quarries) .....	2·88	3·4	2·18	2·5
Bangor (Town Hall) .....	2·51	4·9	1·24	2·4
Snowdon (Cwm Dyli), No. 11 .....	5·09	3·2	4·96	3·1

According to the Liverpool correspondent of *The Times*, writing on November 14th, the floods at Sale on the Mersey were the most severe within memory, the water being 11 ft. deep at Sale Priory. At Clitheroe, 300 houses were flooded, and at Bury fire engines had to be requisitioned to pump water out of houses. Rain is said to have fallen continuously for 48 hours at Portmadoc, and the streets were flooded to a depth of 2 ft.

There was heavy rainfall in all the northern districts on November 15th, when a deep depression was moving from the north-west of Ireland towards the north-east. One fall exceeding 2·5 in. has to be placed on record.

#### November 15th.

*Lancashire, N.*—Coniston School Garden..... 2·59 in. or 2·1 per cent.

**December.**—Late on December 6th a depression approached the north of Ireland, and a southerly gale was experienced along the coasts. The heaviest rainfall was on the Mourne Mountains, which confronted south-east winds from the Irish Sea. The same depression was responsible for heavy rain in Scotland and the Lake District during the next 24 hours.

\* Information not available.



## 8. MONTHLY RAINFALL IN 1923.

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Information as to the rainfall of the months of 1923 is set out in this section in various forms :—

(1) Table XVII gives the monthly rainfall in inches at 399 stations selected so as to represent all parts of the British Isles.

(2) Table XVIII is confined to stations for which averages for the period 1881 to 1915 are available, and again the stations are equally distributed. In this case 152 records are utilised.

The means of the values for each month for each country, for England and Wales and for the whole British Isles, are set out at the end of this table.

(3) *Monthly Rainfall Maps*.—In the preparation of the series of maps of actual rainfall, some 2,000 values are utilised. Details which would tend to confuse the map on the small scale are eliminated.

(4) *Monthly Percentage Maps*.—The percentage maps are based on the values from some 200 stations, which include those given in Table XVIII.

The monthly rainfall over the British Isles varied during 1923 from 1·4 in. in June to 6·5 in. in February. Thus February was nearly five times as wet as June. Only two months, March and June, showed considerable deficiencies. The seven months, February, April, May, August, September, October and November, were all above the average. The remaining three months, January, July and December, gave on the whole the usual amount of rainfall. June, with 53 per cent., had least rainfall both in actual amount and in relation to the average. February, with 204 per cent., was on the other hand both the wettest month in actual amount and in relation to the average. In fact, February, 1923, was the wettest February since before 1903 and probably the wettest on record. September, which had become conspicuous for the run of low values, was wet in 1923. October and November, which had been dry for 5 and 6 years respectively, were also wet in 1923. On the other hand, January and March were drier than similar months for 5 and 4 years respectively.

In the summary to Table XVIII the following points call for comment :—\*

1. February, 1923, in both England and Wales and in Ireland was the wettest February since before 1903. The general rainfall for England and Wales was as much as an inch more in 1923 than in the wet Februarys of 1915 and 1916. In Scotland the rainfall was not so remarkable, being rather less than that of February, 1915.

2. In Scotland, August, 1923, was the wettest August since before 1903. The rainfall was above the average in each of the last six months of the year, and the three months August to October, with excesses of 61, 50 and 44 per cent. respectively, were conspicuous.

### *General Monthly Rainfall.*

In Table XVI details of the general monthly rainfall for 1923 are set out for the countries and for the British Isles as a whole. These values have been computed by applying the percentage values given in Tables XVIII and XX to the average general values set out on page XV. The values for the months have been adjusted so that the annual totals should agree with those obtained in Table XX, p. 118.

Table XVI.—*General Rainfall for 1923, computed from the Average, 1881–1915, by applying General Percentage Values.*

	England.	Wales.	Scotland.	Ireland.	Isle of Man.	England and Wales.	British Isles.
	in.	in.	in.	in.	in.	in.	in.
January .. ..	2·2	4·2	5·9	3·8	3·9	2·5	3·6
February .. ..	5·3	10·3	6·4	7·0	4·8	6·0	6·5
March .. ..	2·0	2·0	1·9	2·8	1·7	2·0	2·2
April .. ..	2·5	3·6	3·6	3·8	2·8	2·6	3·2
May .. ..	2·6	3·5	4·1	2·0	2·6	2·7	2·9
June .. ..	0·7	1·3	2·5	1·3	1·3	0·8	1·4
July .. ..	2·8	4·0	4·3	3·0	3·3	2·9	3·3
August .. ..	3·5	5·4	7·1	6·1	7·2	3·8	5·2
September .. ..	3·0	5·1	5·9	4·4	4·0	3·3	4·2
October .. ..	4·8	8·5	6·9	5·1	6·9	5·4	5·7
November .. ..	3·4	5·8	5·8	4·1	4·3	3·7	4·4
December .. ..	3·8	5·5	6·0	4·2	5·8	4·1	4·6
Year .. ..	36·6	59·2	60·4	47·6	48·6	39·8	47·2

\* General percentage values for the British Isles have been evaluated for the months from 1903, and these are set out in *British Rainfall*, 1921, pp. 89–92.



*Extremes of Monthly Rainfall at individual stations.*

Measurements of more than 30 in. for a month were confined to the gauges at the head of Borrowdale, in Cumberland. At the "new gauge" at Styé B as much as 31·20 in., 34·00 in. and 30·00 in. were measured for August, October and November respectively.

The smallest monthly totals occurred in June when well defined areas along the coast of South Devonshire, in Warwickshire and round Cork Harbour received less than ·25 in. for the month. Some of these small totals are given below :—

Cork :—				<i>in.</i>
Midleton (Ballinacurra)	..	..	..	·09
Shangarry (Kinoith)	..	..	..	·10
Devon :—				
Ashprington (Myrtle Cottage)	..	..	..	·13
Ashburton (Orchard Mount)	..	..	..	·15
Warwick :—				
Stratford-on-Avon (Shottery House)	..	..	..	·14
Alcester (Ragley Hall)	..	..	..	·15

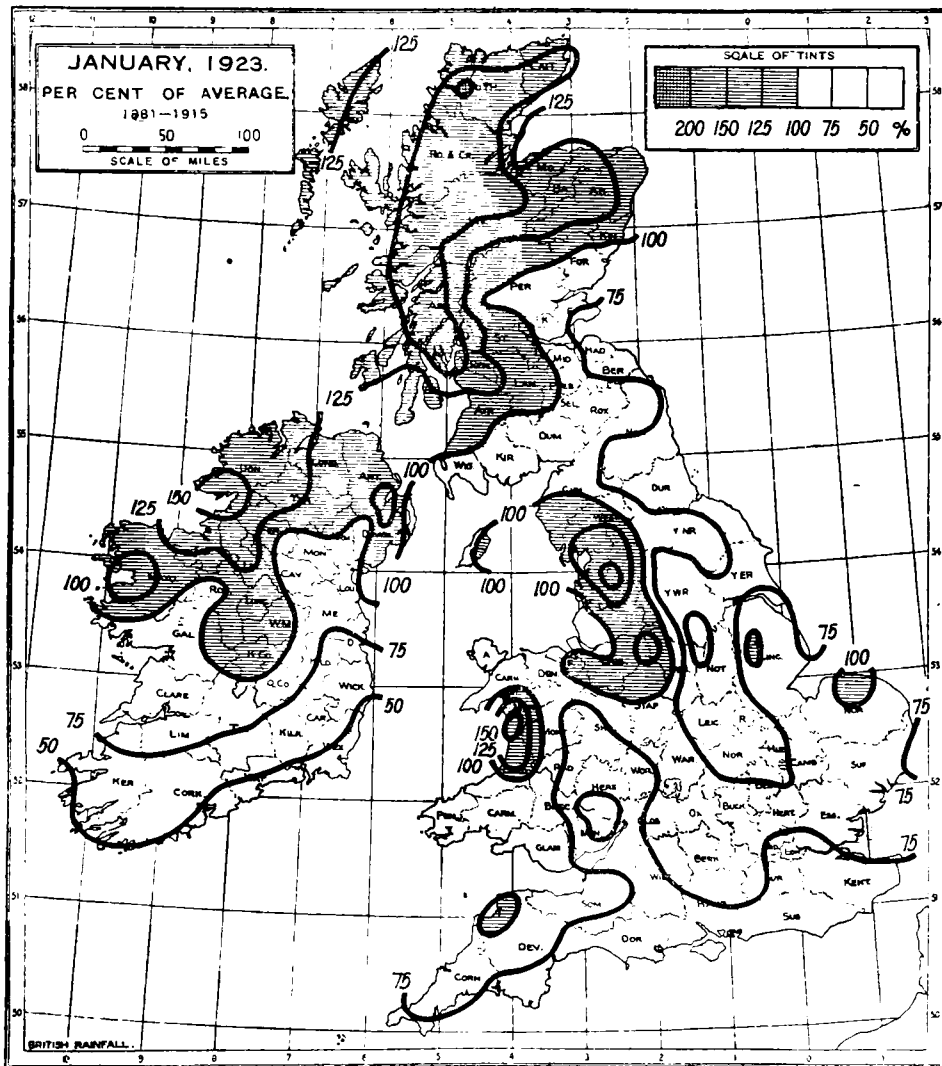
As to percentages of the average the extremes for stations in the British Isles occurred in February and June. More than three times the average fell in February, May and June. In May and June the areas were small and occupied parts of Aberdeenshire and Sutherlandshire. In February such falls were more widespread and as much as 345 and 348 per cent. of the average fell at Braemar in Aberdeenshire and at Birmingham in Warwickshire. In June less than 10 per cent., and locally as little as 5 per cent., of the average occurred in South Devon and in Co. Cork. The range in June from 5 per cent. in these areas to over 300 per cent. in Sutherlandshire is unusual.

*The Rainfall of the individual months.*

**January.**—The weather of this month was largely dominated by depressions which passed to the north of Scotland between Iceland and Scandinavia. The associated winds blowing from the west across Scotland, gave heavy rainfall in the Highlands, whilst parts of south-eastern Scotland had less rain than the average. It is noticeable that in all the countries the rainfall was above the average to the north-west and below to the south and south-east. Over the whole of the western Highlands and in small areas in north Lancashire, Merionethshire and Co. Donegal as much as 150 per cent. of the average occurred. Practically twice the average was reached in Sutherlandshire and in Co. Donegal. Although the areas with deficiencies were more widespread, the deficiencies were less pronounced than the excesses. It was only in the extreme south of Ireland that there was less than half the average.



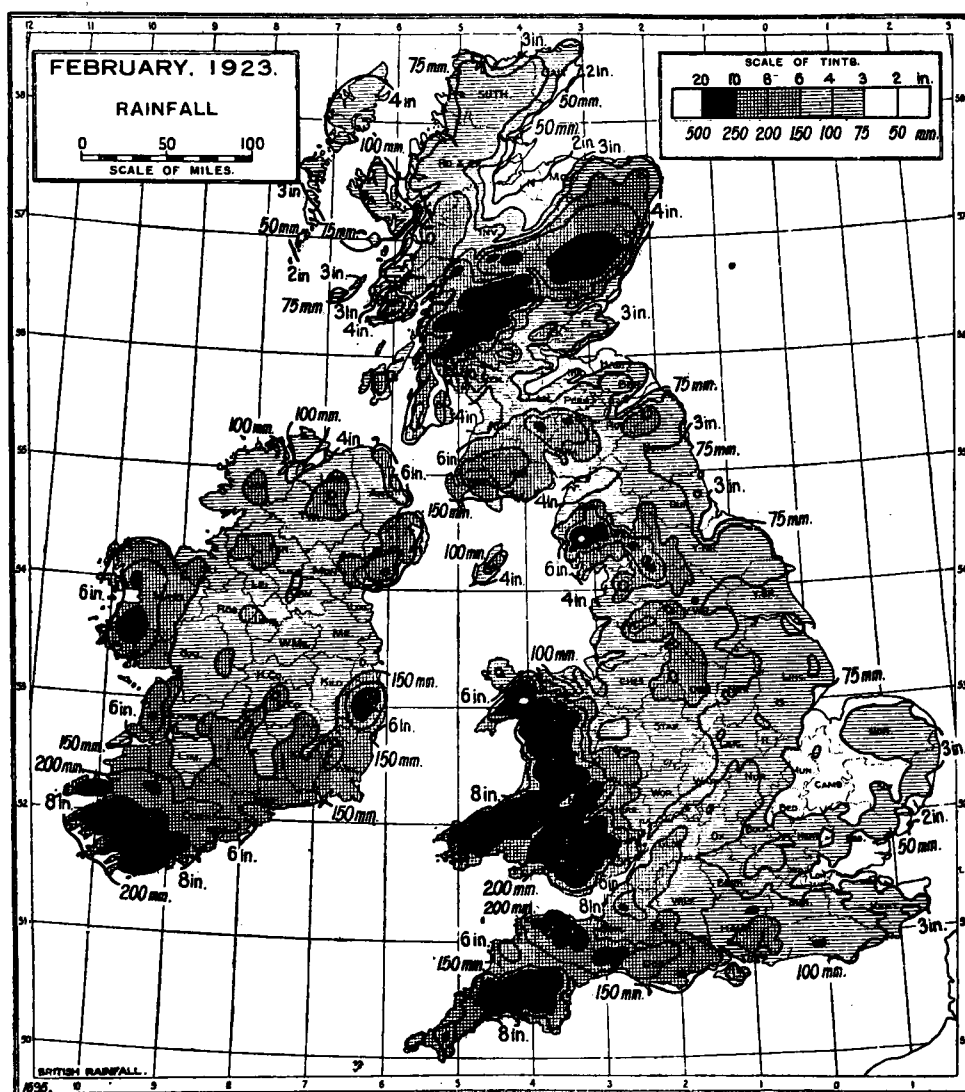
the central region of England and Wales. The rainfall of the month was below the average only to the north-west of Scotland where rather less than 75 per cent. fell over a large area along the coast. The area with more than twice the average was widespread. It included the whole of England and Wales (with the exception of coastal strips



Rainfall, January, 1923, as per cent. of average.

in the north-west and south-east), the eastern half of Ireland and parts of the east of Scotland. A large area extending from the north of Cornwall to Staffordshire and small areas in Aberdeenshire and Co. Dublin had more than three times the average. At Braemar in Aberdeenshire and Birmingham in Warwick the fall for the month

was as much as 345 and 348 per cent. respectively. The large totals were due mainly to the heavy falls on the 6th, 7th, 9th, 10th, 26th and 27th. In many places the precipitation was the largest ever known in February, this being the case in records covering 105 years at Ross-on-Wye, 80 years at Cirencester, 70 years at Bristol and 59 years at

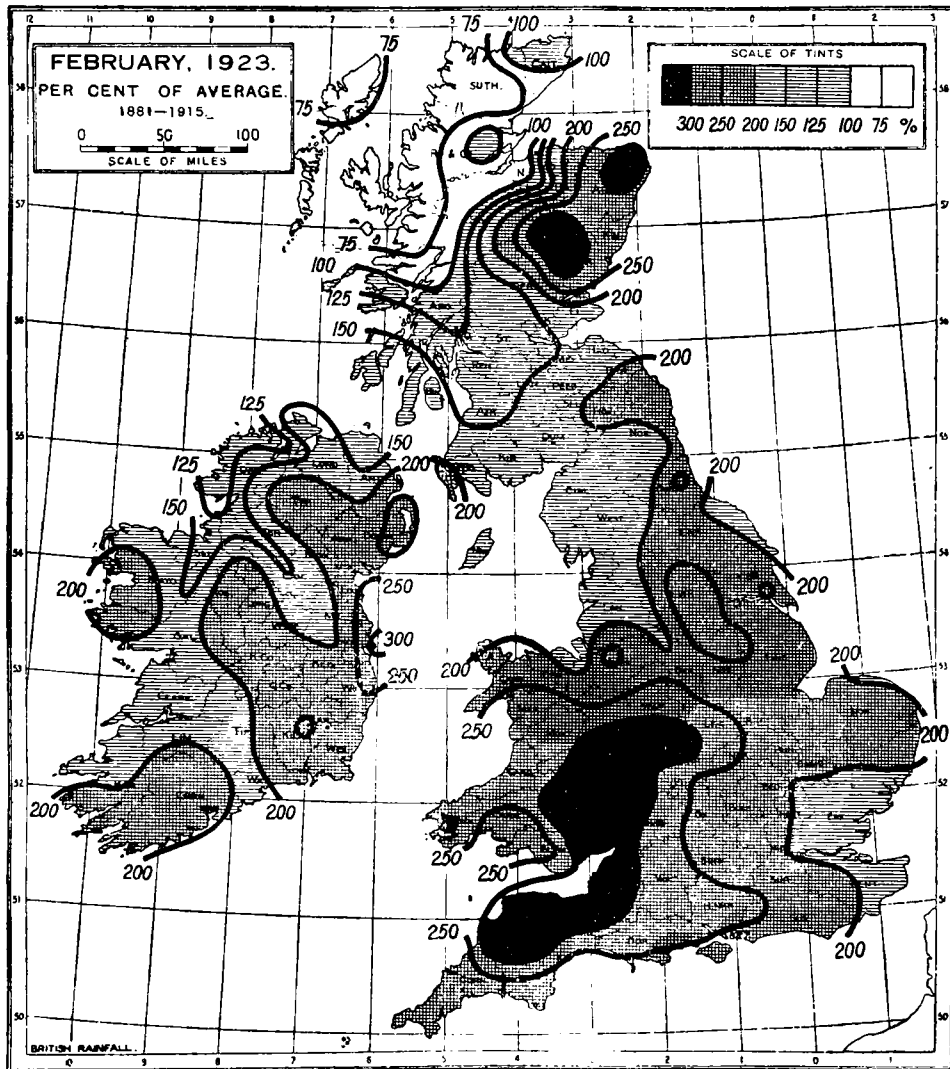


Rainfall, February, 1923.

Wolstaston in Shropshire. Over the British Isles as a whole the rainfall of the month was just over twice the average.

**March.**—During the month the country was mainly under the influence of anti-cyclones and nearly everywhere the rainfall was below the average. The whole of Scotland showed a deficiency.

Over the northern half and south-east corner less than half the average occurred, while in the extreme north the fall was as little as a quarter of the average. At Gordon Castle in Elgin the month was the driest March for at least 50 years. In England and Wales and in Ireland it was along a narrow strip in the north-west, that less than half



Rainfall, February, 1923, as per cent. of average.

the average fell. The average was exceeded over a considerable area in the south of Ireland and southern centre of England. 150 per cent. of the average was recorded near Oxford. Over the British Isles as a whole the general rainfall was 70 per cent. of the average.

The map of actual rainfall shows an unusually small area in

England and Wales and in Scotland, with rainfall above 3 in. Around the Moray Firth the fall for the month was only  $\cdot 4$  in. On Ben More in Mull and also on Ben Alder near Loch Ericht just over 7 in. was recorded.

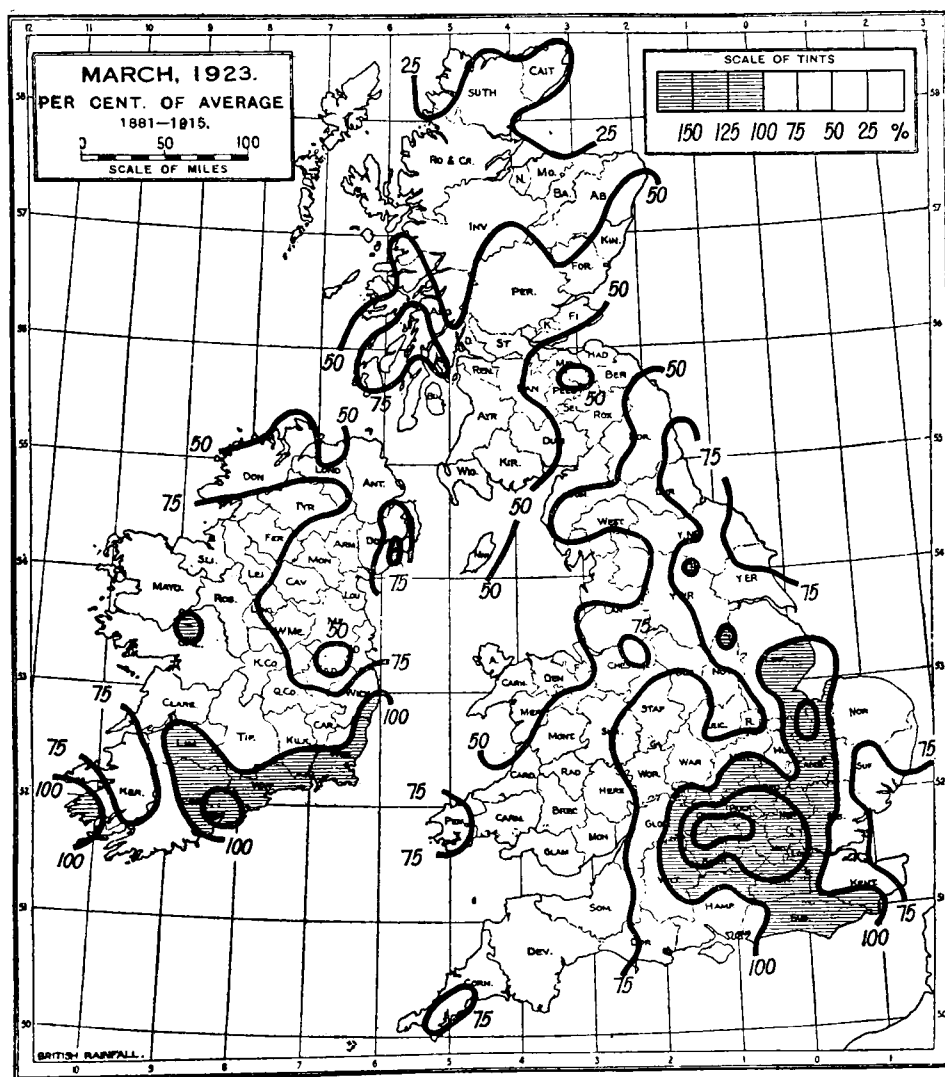
**April.**—The percentage map for April is rather more irregular



Rainfall, 3 March, 1923.

than usual. Less than the average fell over a small part of the British Isles, viz., along the east coast of England, the north-west of Scotland, in Mayo, Flint and Berwick. In the north-west of Scotland, and east of England, less than 75 per cent. of the average occurred. Falls of 150 per cent. and more were reported from all the countries

except Wales. The largest areas with this amount were in the south-east and east of Ireland, the south-east of Scotland, and the south of England. Along the coast of Sussex and Hampshire more than twice the average was recorded, *e.g.*, Ventnor and Brighton had 223 and 227 per cent. respectively. Brighton experienced the third

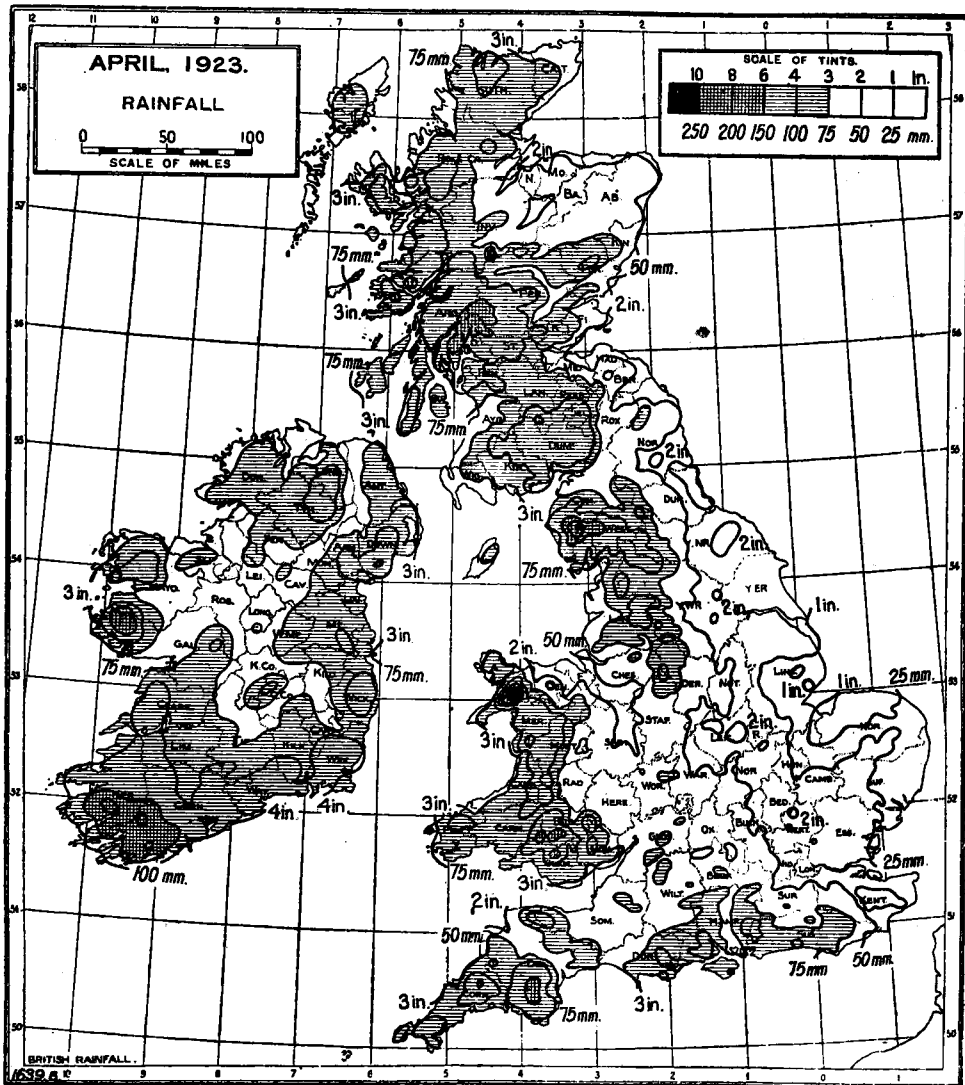


**Rainfall, March, 1923, as per cent. of average.**

successive month with heavy rainfall and an excess also occurred in May. The percentage values for the four months February to May were 221, 119, 227 and 208 respectively. After June Brighton experienced four more months of excess rainfall, the percentage values being 154, 154, 139 and 178 for the months July to October.

The value in July was due mainly to the heavy fall on the 9th. For the 8 months February to May and July to October the mean monthly percentage value for Brighton was 175.

**May.**—In May two primary depressions traversed Scotland and



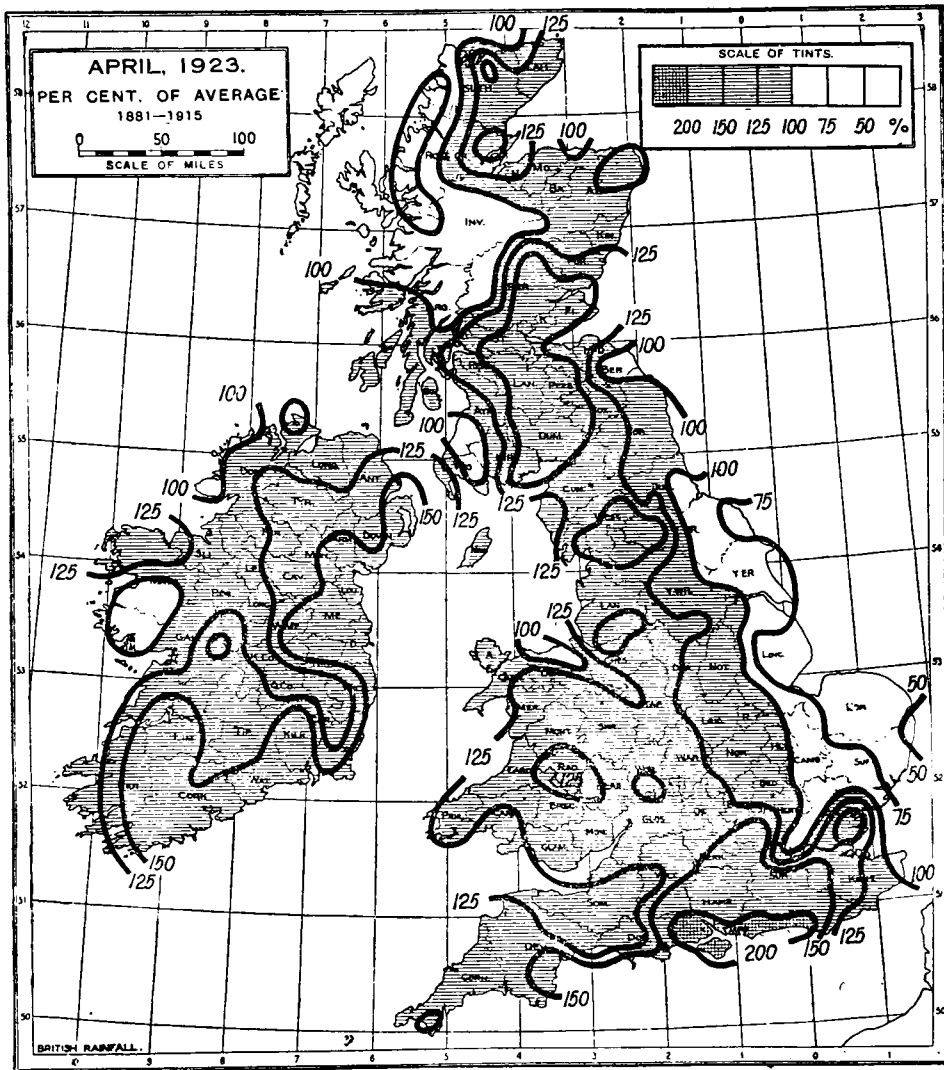
Rainfall, April, 1923.

heavy rain fell in the north-west of England and particularly in the north-east of Scotland. Over Great Britain there were alternating belts of excessive and deficient rainfall. The areas with excesses included :—



(1) The south-east of England with more than twice the average in parts of Sussex and Kent.

(2) A region stretching from Carmarthen to the East Riding of Yorkshire in the south and Northumberland in the North. The fall

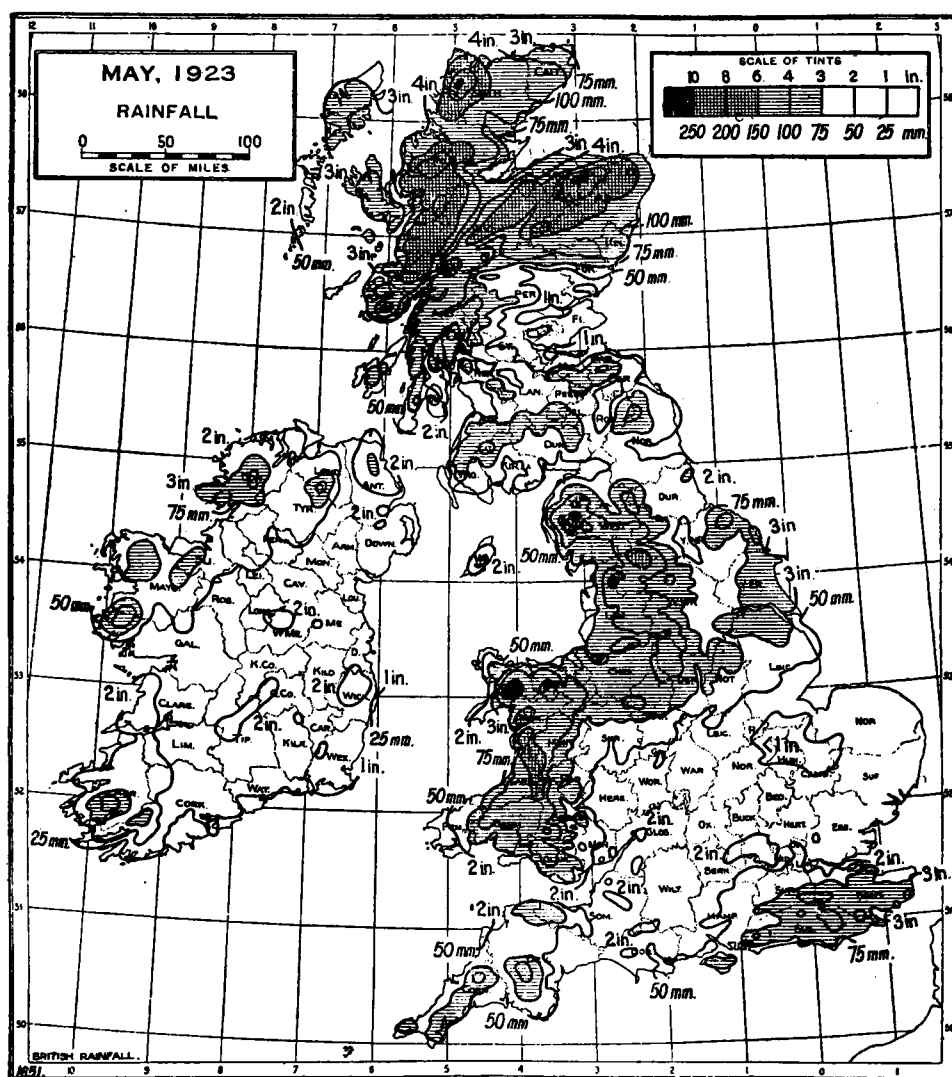


Rainfall, April, 1923, as per cent. of average.

nowhere exceeded twice the average, but at Dolgelly in Merionethshire and at Hull in Yorkshire as much as 196 and 191 per cent. fell respectively.

(3) The southern uplands of Scotland.

(4) The northern half of Scotland. In this region there was more than twice the average to the north of the Grampians and the north-west of Sutherlandshire. More than three times the average occurred at New Deer in Aberdeenshire and at Grantown in Morayshire, due



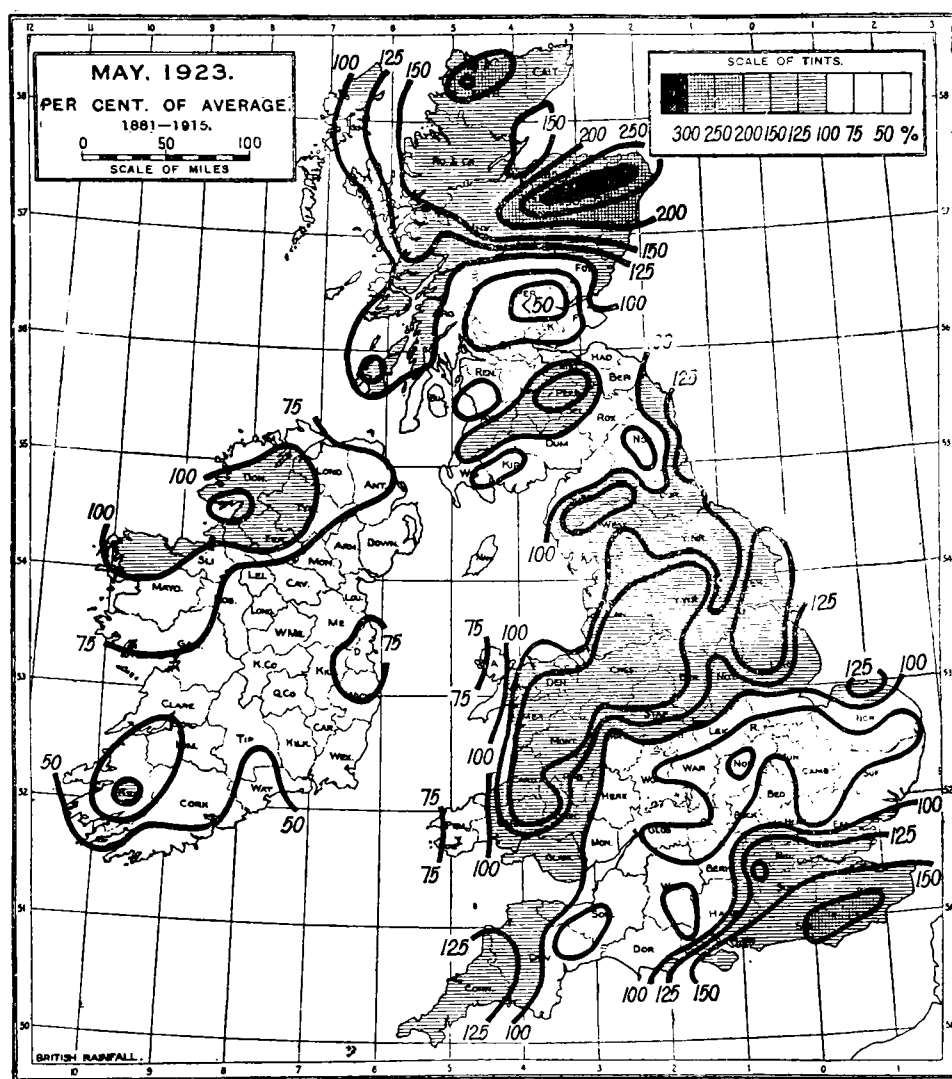
Rainfall, May, 1923.

mainly to the run of wet days from the 9th to 17th, and from the 25th to 26th, the fall on the 25th being the only day with more than 1 in.

In the intermediate belts less than half the average occurred in Northamptonshire and in Perthshire.

In Ireland less than half the average fell along the south coast and rather more than the average in the north-west.

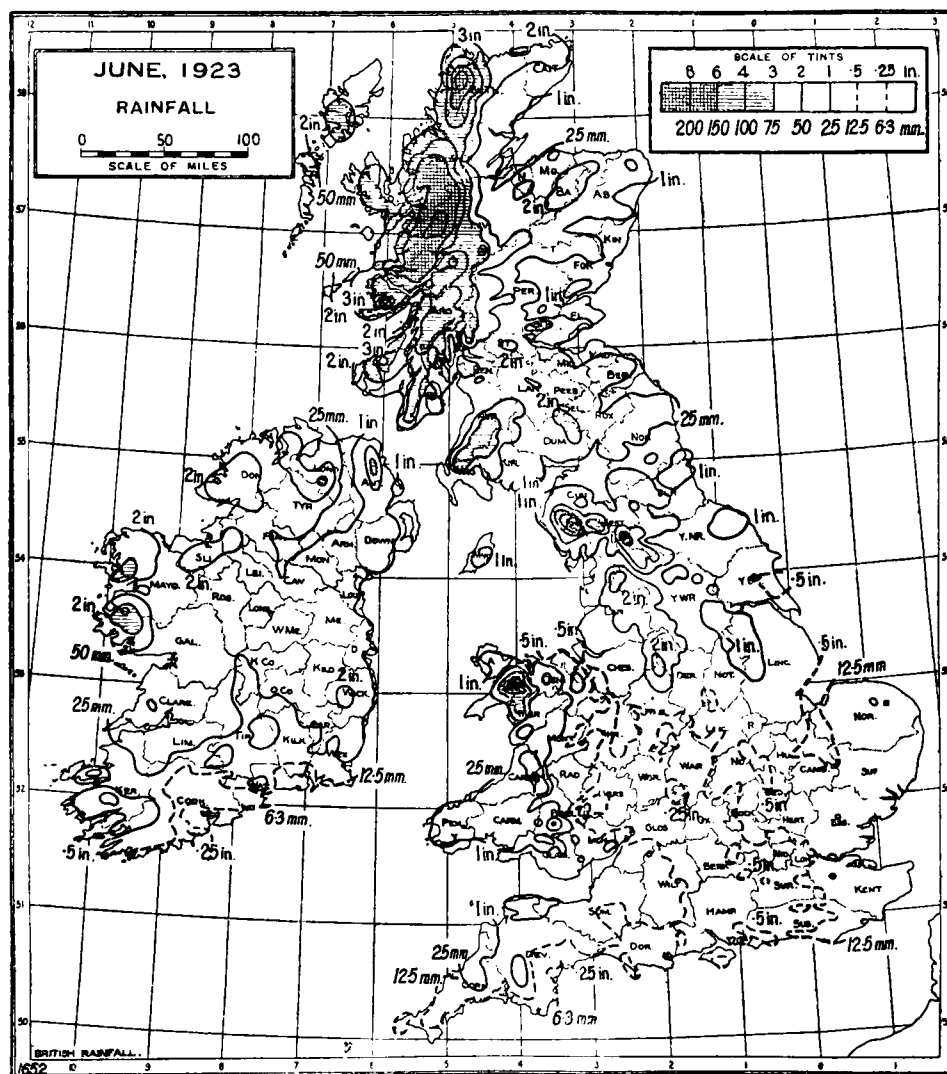
**June.**—The month was singularly free from thunderstorms. Of the



Rainfall, May, 1923, as per cent. of average.

stations in the long list in the Monthly Weather Report only three, Oxford, Whitby and St. Aubin's (Jersey), have any entries of thunderstorms, and these only one each. At Oxford there was a sharp shower on the evening of June 15th, and the observer noted a single peal of

thunder. The shower was probably of the line-squall type. The one report from Whitby refers to "thunder heard" on June 27th, possibly the storm was at sea, there was no rainfall that day in the North Riding. On the other hand there was a genuine thunderstorm on June



Rainfall, June, 1923.

1st in Jersey, it yielded over half an inch at most of the stations in the island. In England and Wales more than 50 per cent. occurred in the English Lake District and in central Wales. Less than a quarter of the average fell over a large part of central and south-east

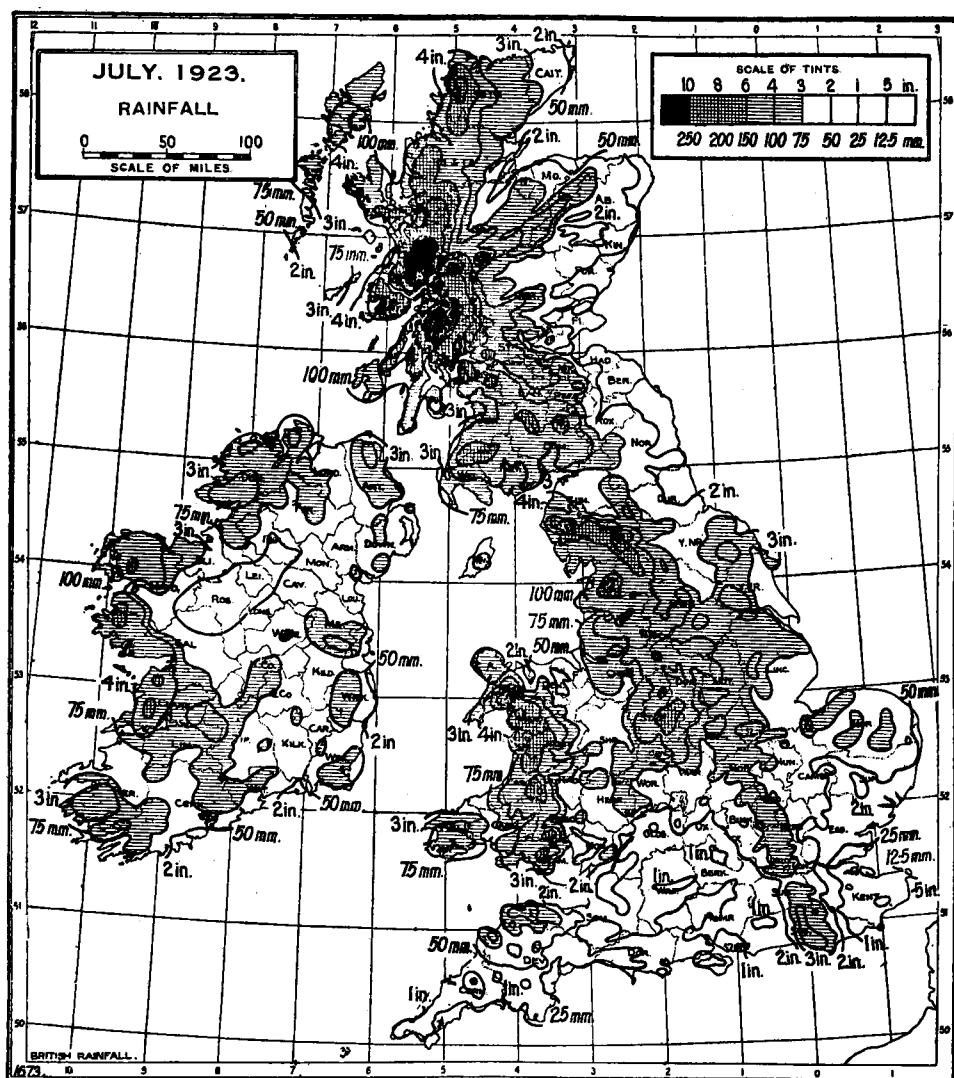
of England, and less than 10 per cent. in south Devonshire. Over the greater part of the south and east of Scotland and of Ireland less than half the average fell. In a broad belt along the south coast of Ireland the fall was less than 25 per cent. of the average and less



Rainfall, June, 1923, as per cent. of average.

than 10 per cent. in Co. Cork. Rainfall in excess of the average was confined practically to the north-west of Scotland. The area with 150 per cent. included a large part of the western Highlands, while at Achfary near Loch More the fall reached three times the average.

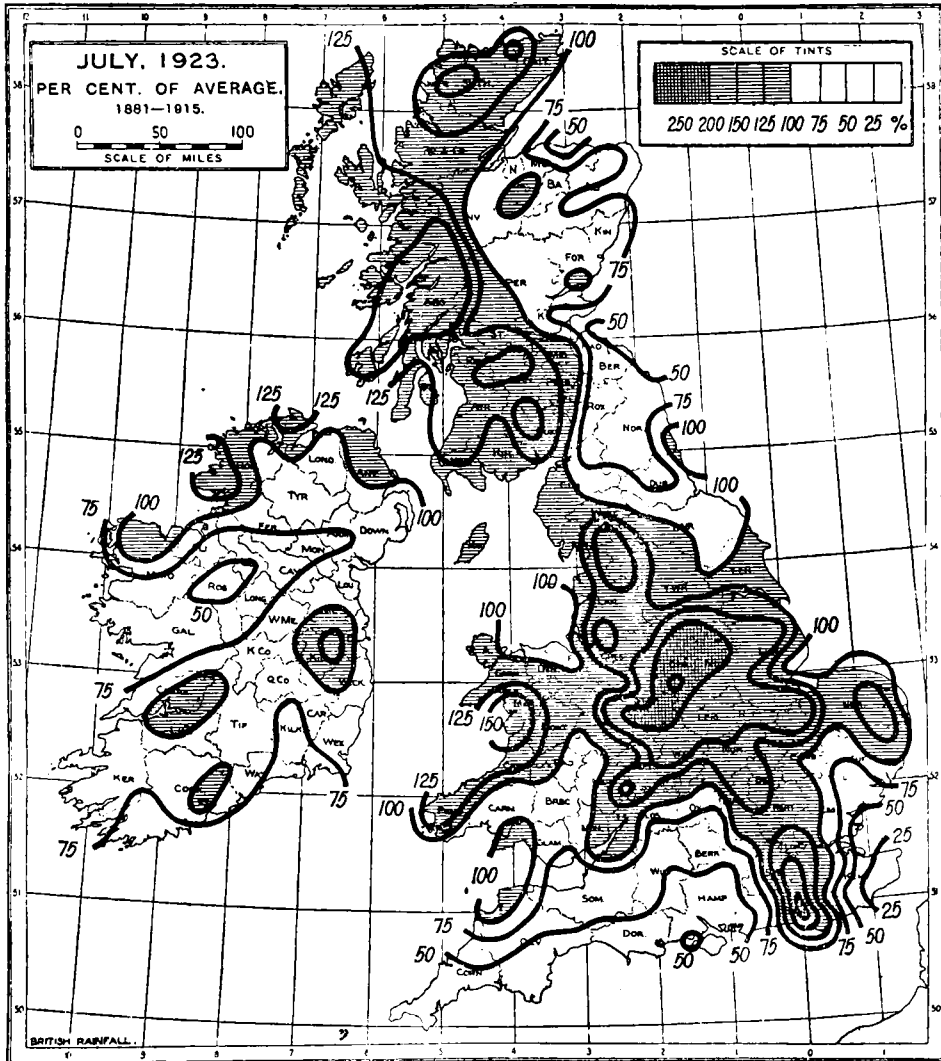
**July**, unlike June, was remarkable for thunderstorms. These occurred mainly between the 7th and the 15th, and some details of the heavy rains accompanying these storms are set out in the article on "Heavy Falls on Rainfall Days," pp. 48-57. In the case of the



Rainfall, July, 1923.

rain of July 9th a map showing the distribution of the fall on that day is given. Rainfall for the month in excess of the average fell in the western half of Scotland and widely in England and Wales, especially in the central and southern portion. In small areas in Staffordshire,

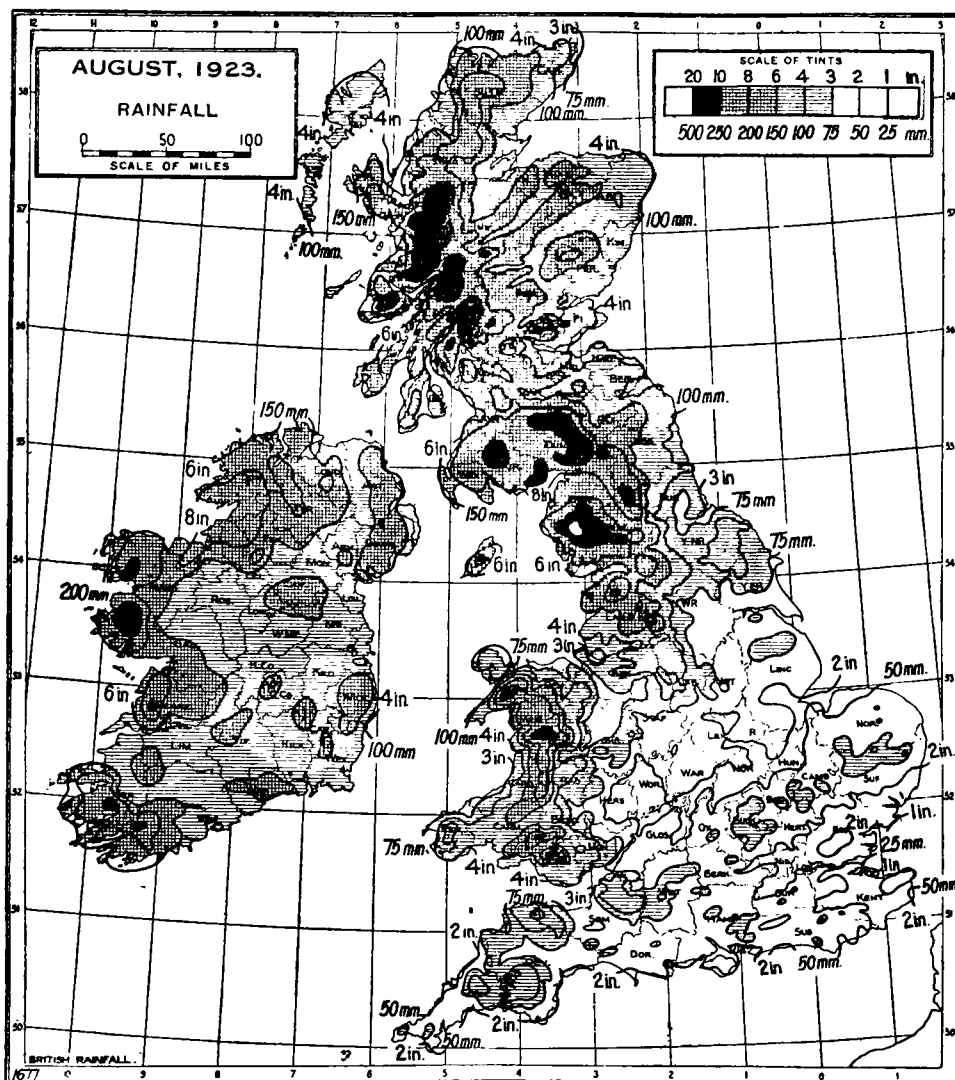
Derbyshire and Sussex the fall exceeded twice the average. The areas with heavy rain on the 9th, 12th and 14th are shown up on both the percentage map and the map of actual rainfall for the month. The areas where the rainfall of the month was below the average include :—



Rainfall, July, 1923, as per cent. of average.

- (1) The south-west, north-east and south-east coasts of England. In Kent there was less than 25 per cent. of the average.
- (2) The eastern half of Scotland, and
- (3) The greater part of Ireland with the exception of small areas in the centre and extreme north.

**August.**—The rainfall of this month was above the average over the whole of Scotland and Ireland and in the north and west of England and Wales. Deficiencies in the south and centre of England were

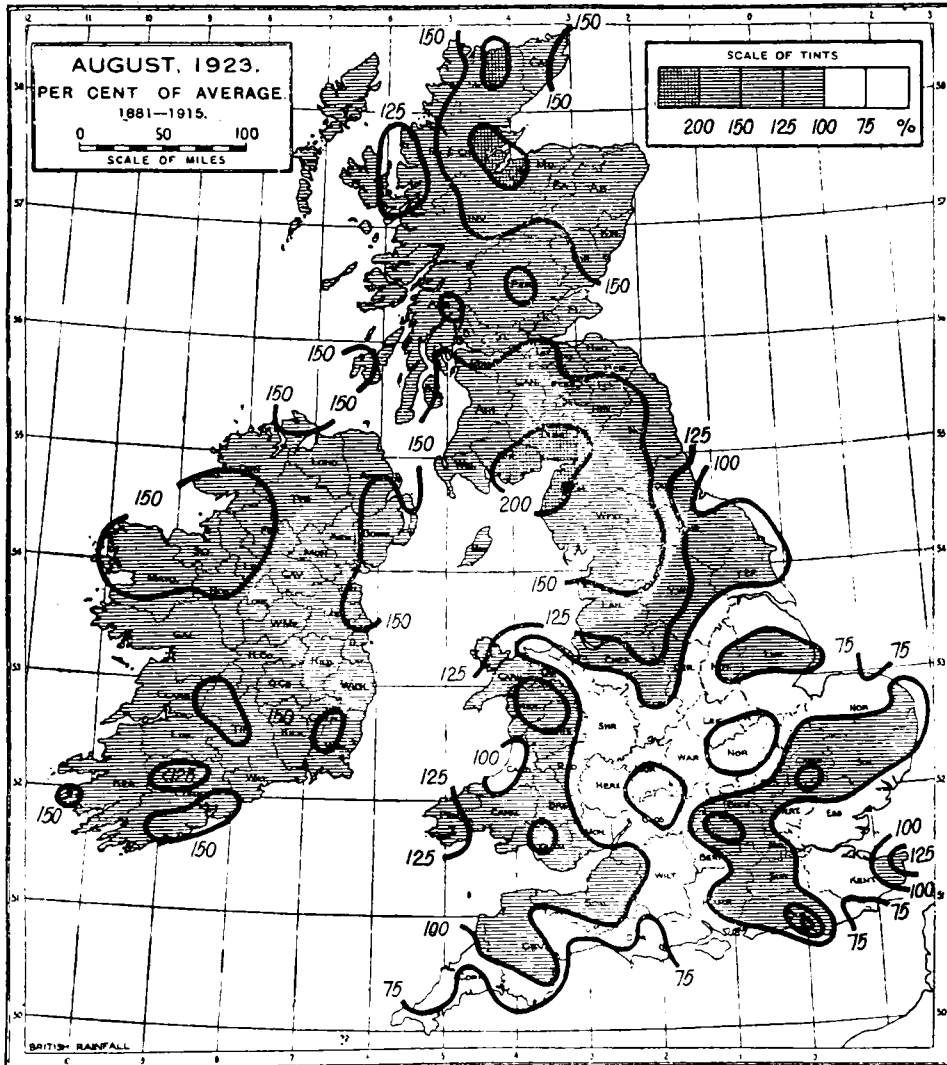


**Rainfall, August, 1923.**

not large, rarely exceeding 25 per cent. More than 150 per cent. of the average occurred over large areas, especially in the north-west of England and south-west of Scotland and also in the extreme north-east of Scotland. In both these areas twice the average occurred,



being centred round the Solway Firth and Moray Firth. In these two areas and in the south-west of Scotland generally the month was the wettest August on record, but in some of the very wet areas in the Highlands the falls were less heavy than in, *e.g.*, 1917 or 1912. For

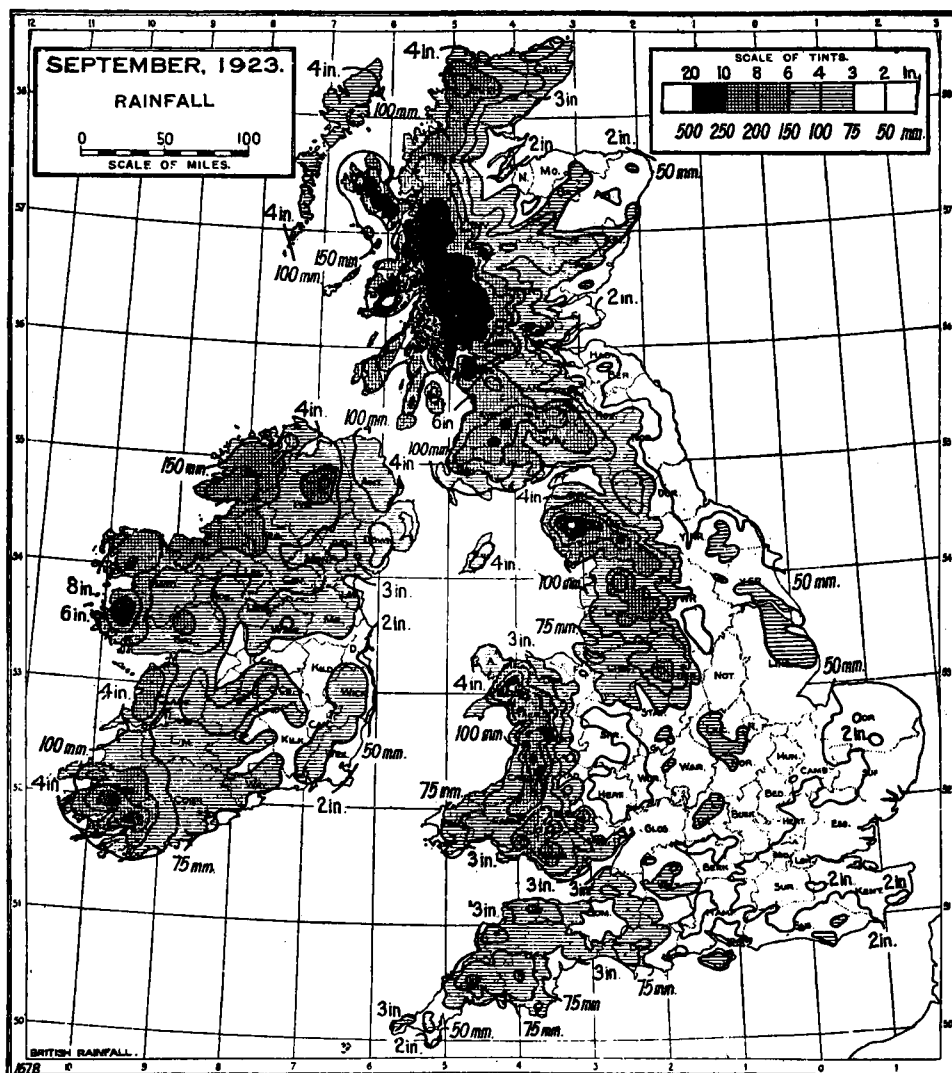


Rainfall, August, 1923, as per cent. of average.

Scotland as a whole with a general percentage value of 161 per cent., it was the wettest August since before 1903.

**September.**—During the early part of the month fair weather prevailed generally, but towards the second week unsettled weather

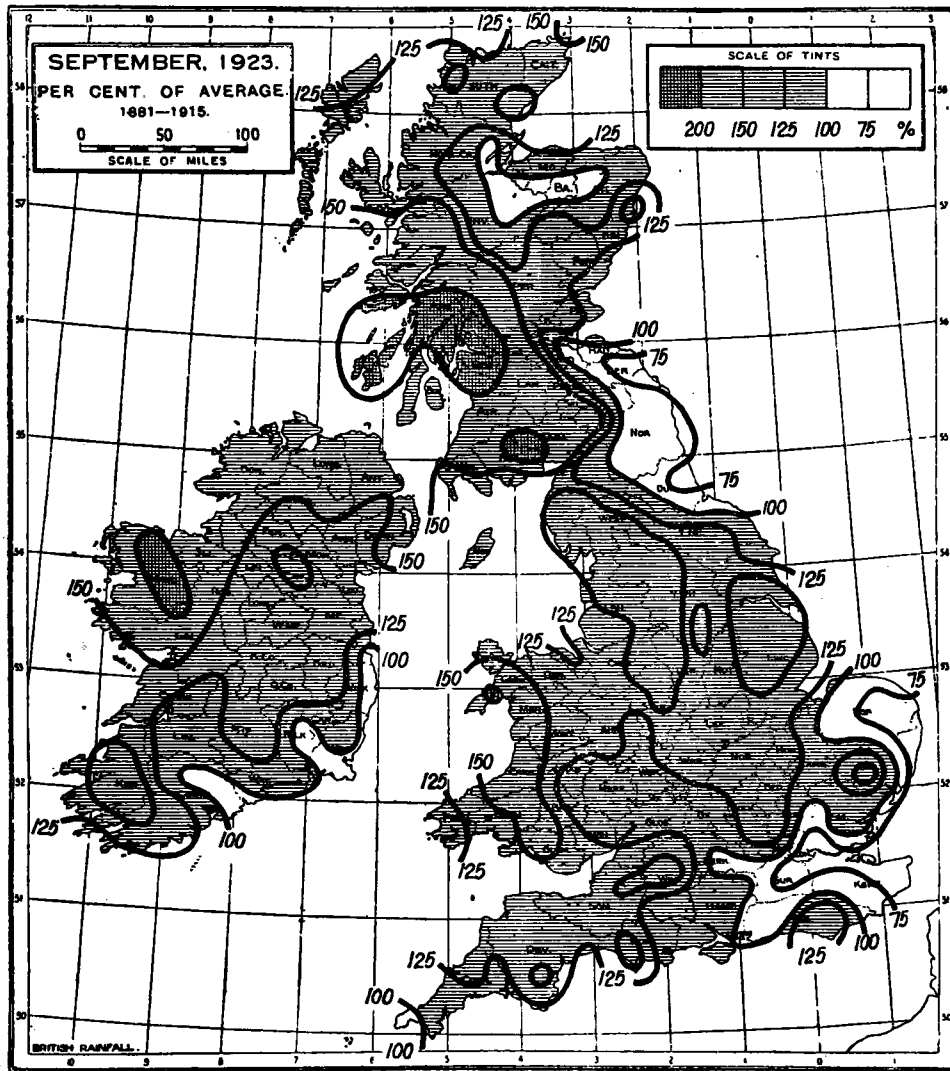
spread to the south, and the month was wet. Less than the average for the month occurred in coastal strips along the south-east and north-east of England, the south-east of Ireland and in parts of Inverness-shire. Falls of 150 per cent. and more were widespread in



**Rainfall, September, 1923.**

the north-west of England, in Lincolnshire, in Wales, the north-west of Ireland and Highlands of Scotland. This was the fifth successive month with a considerable excess in the Western Highlands of Scotland. More than twice the average occurred only in

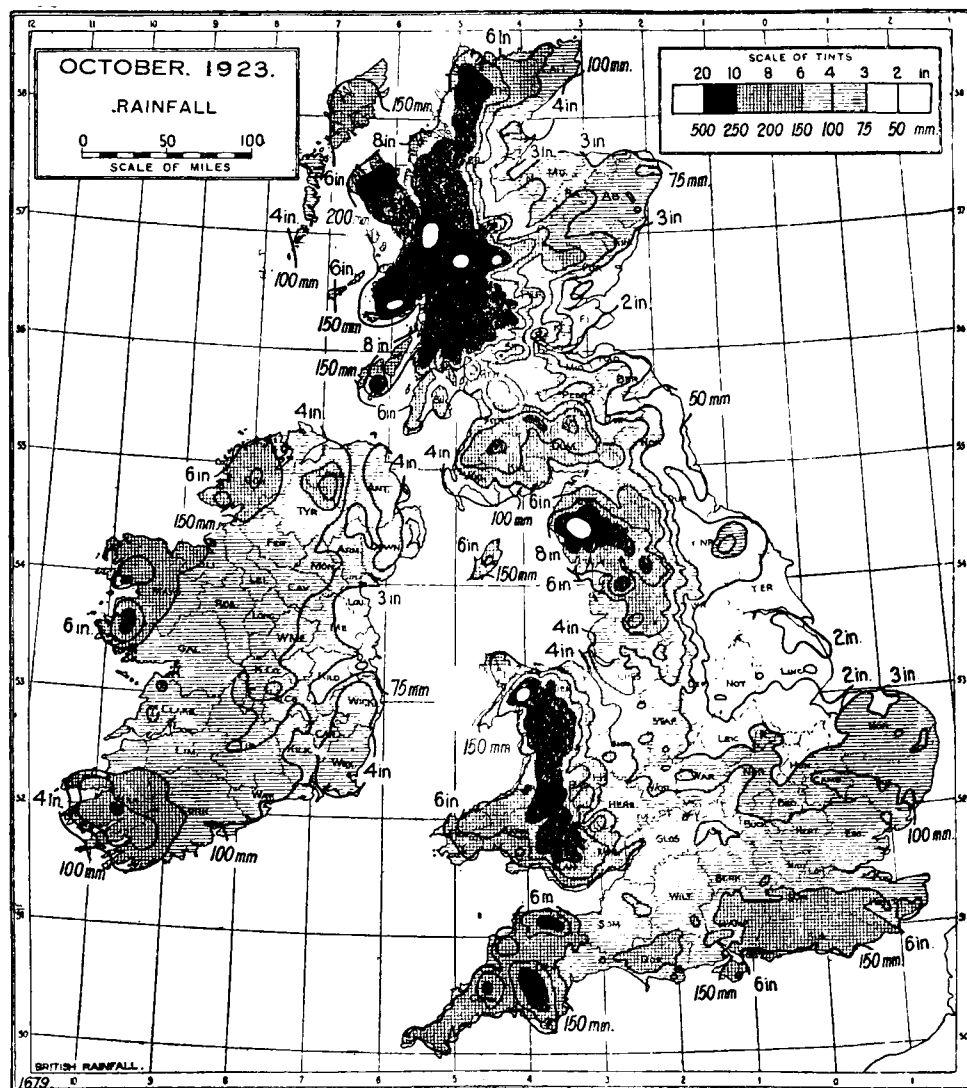
Scotland and Ireland, *e.g.*, in Mayo, Kirkcudbright and over a large area stretching from Glasgow to Mull. At Loch Thom near Greenock the monthly fall was 240 per cent. of the average. This is the largest fall in September since observations began there in 1864 with the one exception of 1879, when 13·37 in. or ·32 in. more was recorded.



Rainfall, September, 1923, as per cent. of average.

**October.**—October was characterised mainly by unsettled boisterous weather with strong south-westerly winds. As in September the greater part of the country had rainfall in excess of the average,

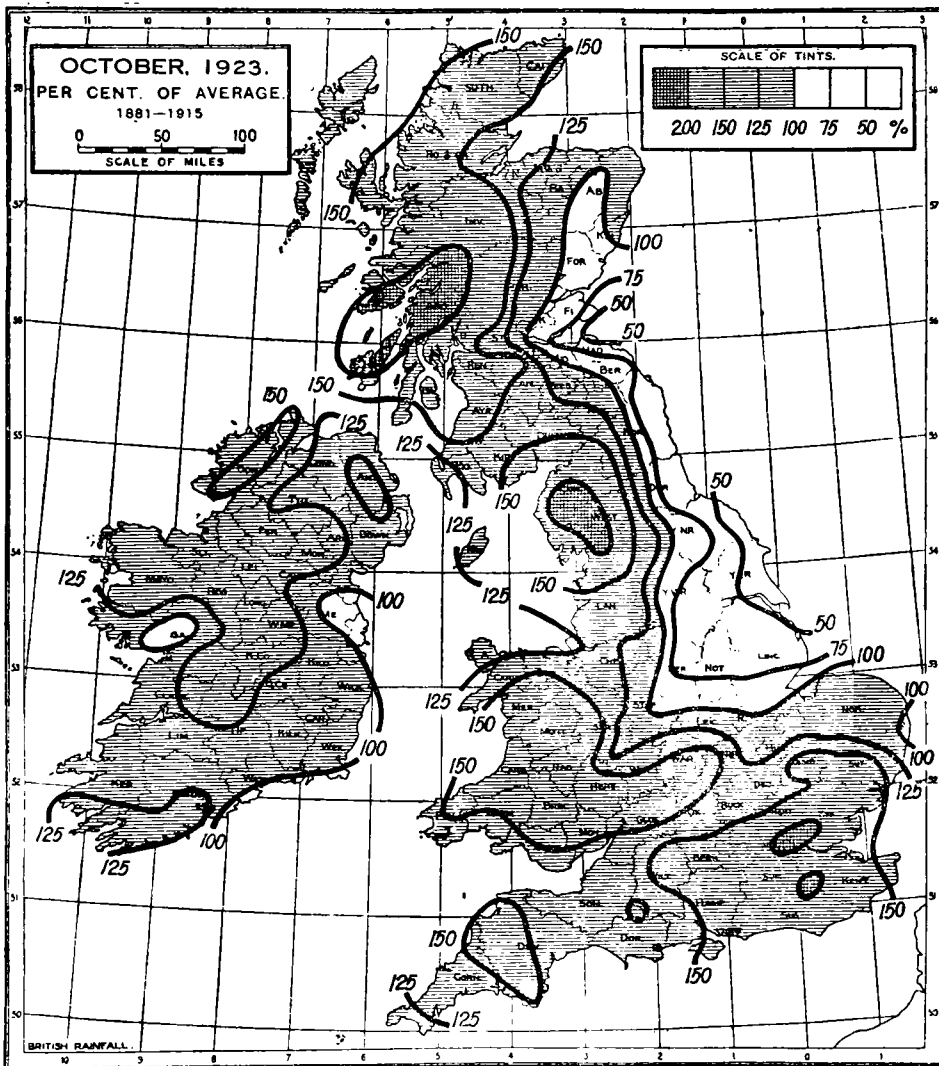
and further, the general distribution of excesses and deficiencies in the two months was similar. Less than the average fell along the east coast from the Wash to the Dee, and in the south-east of Ireland. Only half the average occurred along the coast of Yorkshire and at



**Rainfall, October, 1923.**

North Berwick. Falls of more than 150 per cent. were widespread in Devon, the south-east of England, Wales, the English Lake District, and the Highlands and north of Scotland. The areas with twice the average included Argyllshire, the Lake District and London. The

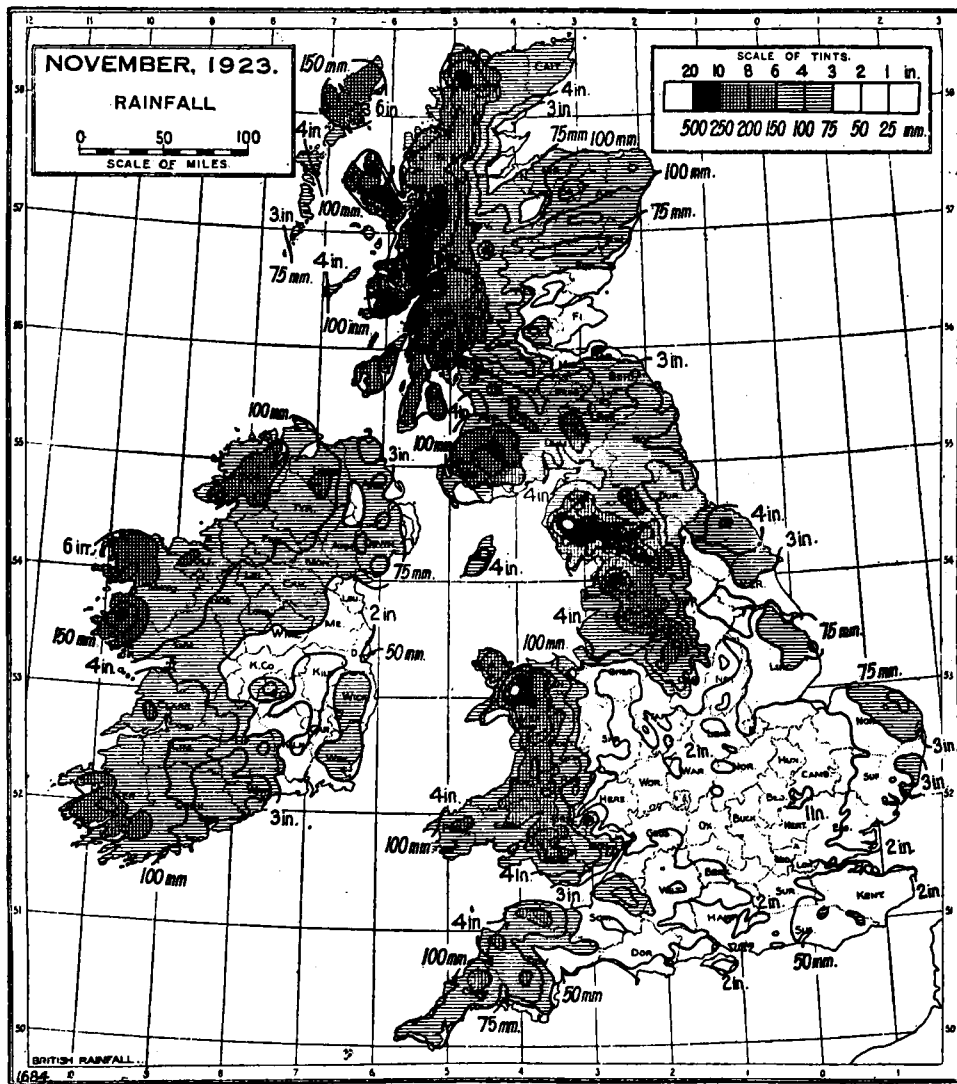
largest percentage values were at Eallabus in Islay, Seathwaite in Cumberland, and Camden Square (London) of 236, 223 and 226 respectively. The value of 5.94 in. for Camden Square is the third largest fall for October since observations began there in 1858.



Rainfall, October, 1923, as per cent. of average.

**November.**—The distribution of the rainfall of the month was largely controlled by that of the heavy rains of November 12th and 13th. A map of the rainfall of these two days is given on p. 64. More than 150 per cent. for the month occurred in North Wales and

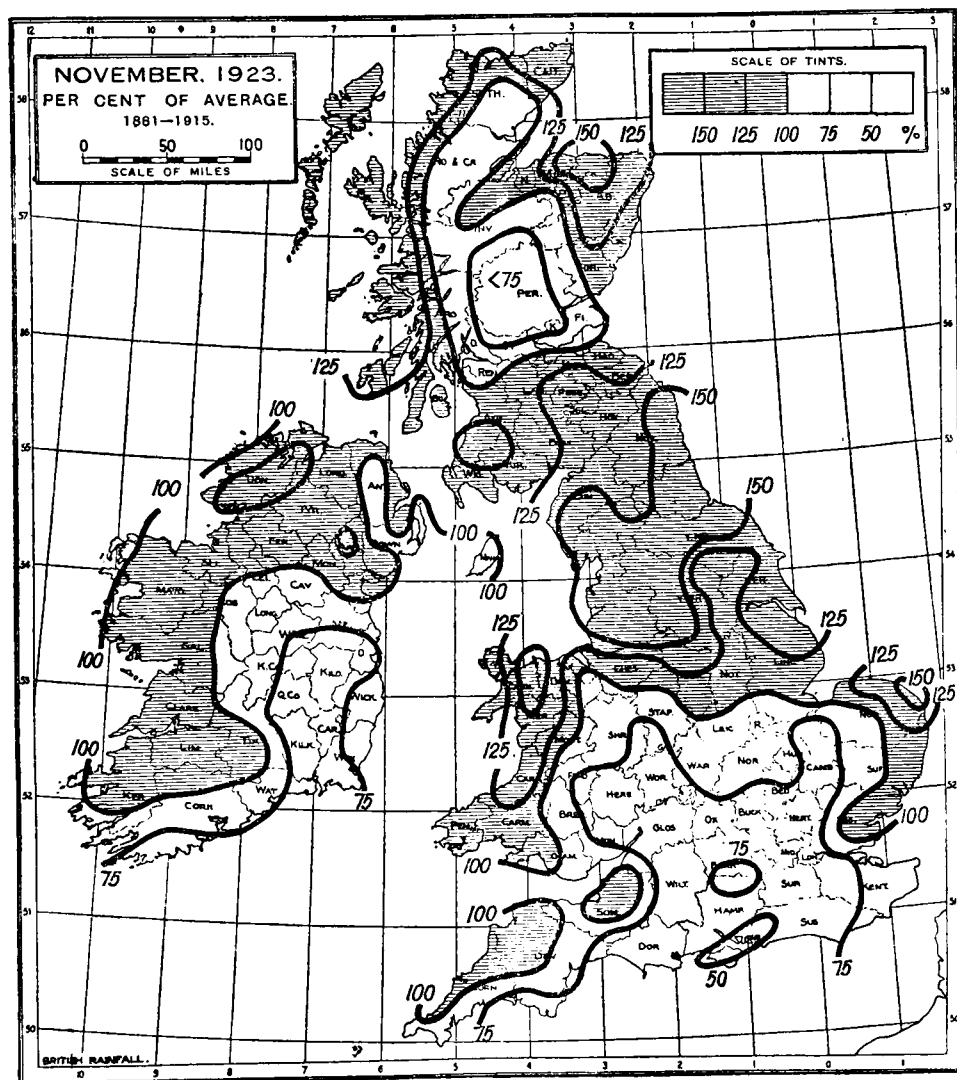
over a large area in the north of England, and in parts of the latter district very nearly twice the average fell. The heavy rain on the 8th in Norfolk and Suffolk was largely responsible for the excesses shown in that area. In Scotland the large percentage value at Gordon Castle



Rainfall, November, 1923.

in Morayshire of 182 per cent. is not due to the rains of the 8th, 12th or 13th, which were inappreciable in that district, but to the run of about equally wet days from the 15th to 23rd, when 4·08 in. fell out of a total of 5·23 in. for the month. In Ireland the falls of the 12th

and 13th were appreciable, especially in the north-west where for the month more than 125 per cent. of the average occurred. The areas with rainfall below the average included the southern half of England, the south-eastern half of Ireland and a central region

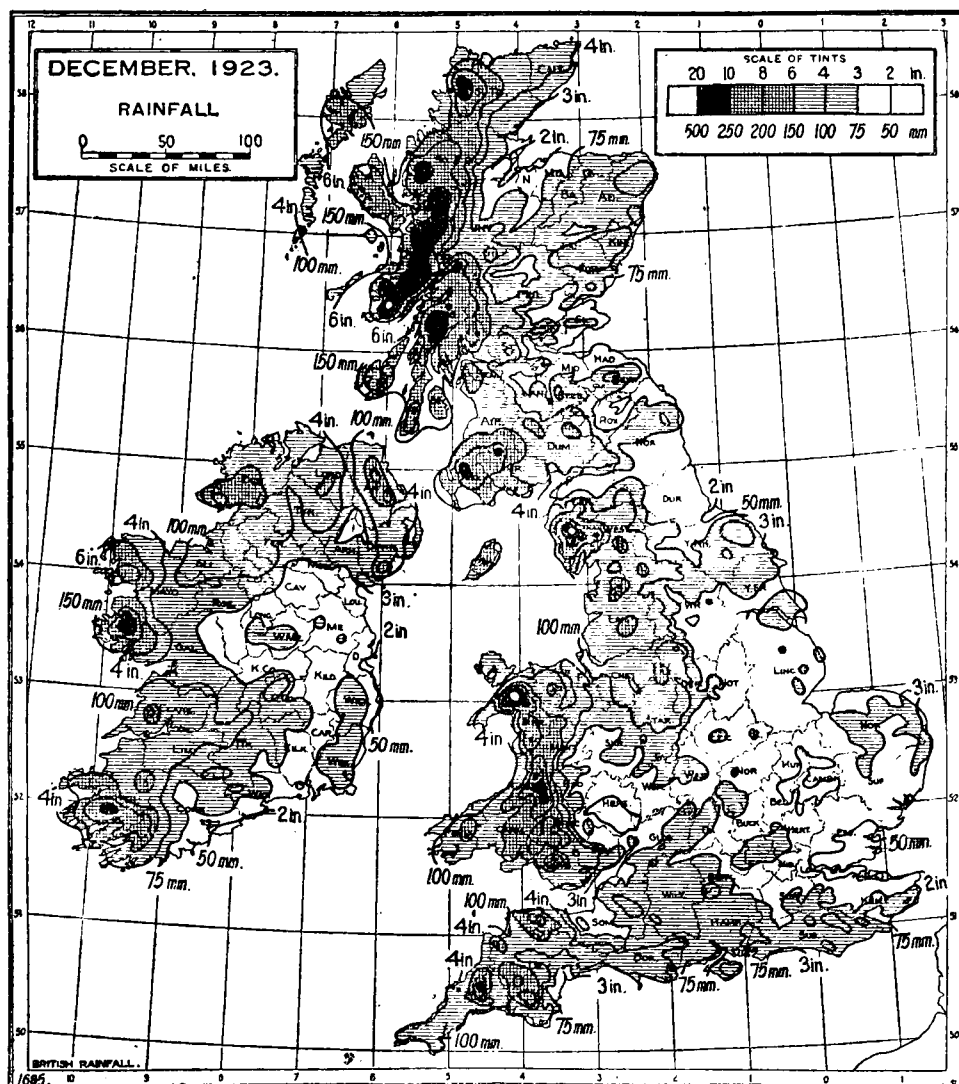


Rainfall, November, 1923, as per cent. of average.

in Scotland. In the neighbourhood of the Isle of Wight the fall was less than half the average.

**December.**—The map showing the rainfall of the month as a percentage of the average, presents features similar to that of November

In Scotland the central region of low rainfall was more widespread, and the deficiency greater in December. Over a small area in Perthshire only half the average fell. Along both the west and east coasts the rainfall was above the average. In Wigtown more than 150 per

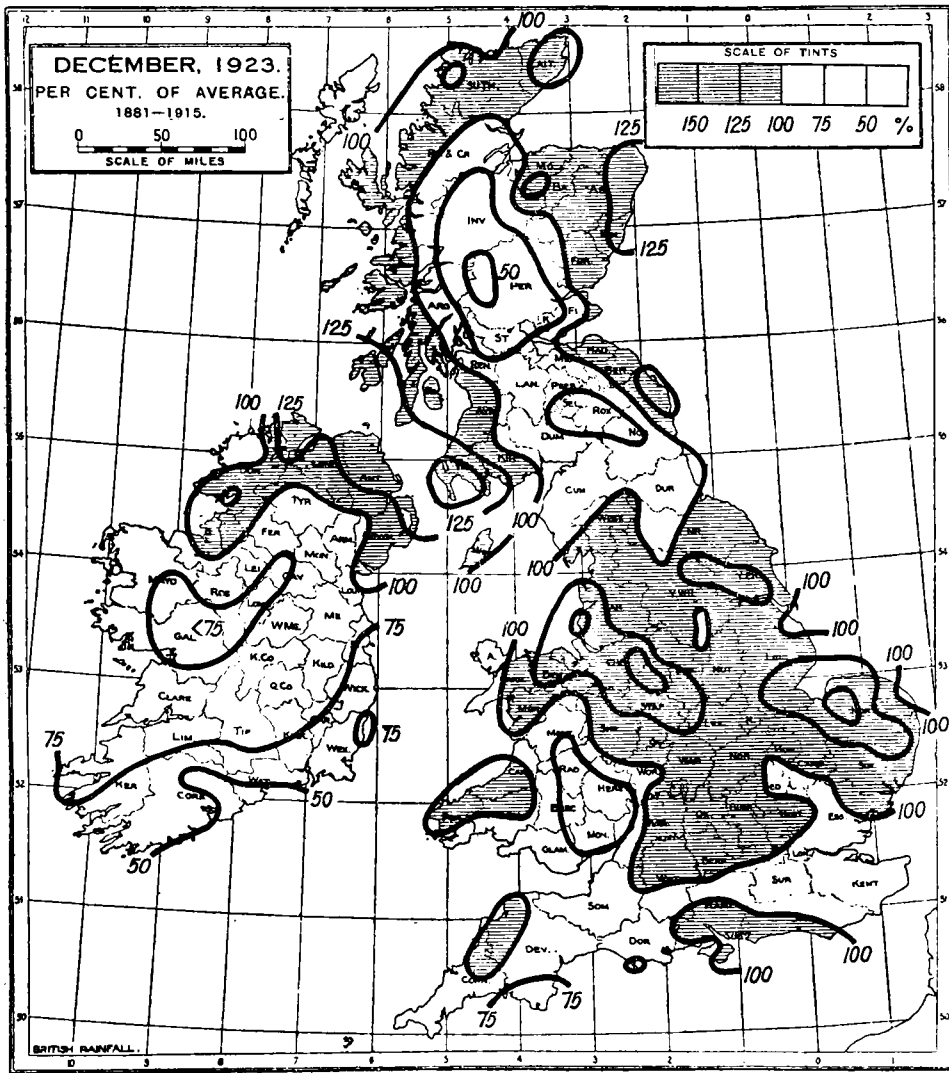


Rainfall, December, 1923.

cent. occurred over a small area where at Ardwel House the fall was as much as 8.00 in. or 195 per cent. of the average. Nearly half this amount fell in the last 7 days of the month. In Ireland the distribution was similar to that of October and November. The largest percentage



values were in the north and the smallest in the south, the range in December was from 125 per cent. to rather less than 50 per cent. In England and Wales the deficiencies were generally small, less than 75 per cent. of the average occurring in South Devon, Monmouth



Rainfall, December, 1923, as per cent. of average.

and Herefordshire. Areas with small excesses were widespread. In small areas round Southport, Macclesfield and Swaffham (in Norfolk) the fall was as much as 150 per cent.

TABLE XVII.—MONTHLY RAINFALL AT 399 STATIONS IN THE BRITISH ISLES DURING 1923.

ENGLAND.

County and River Division.	Station.	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
London	2 St. Pancras (Camden Square)	1.28	3.04	2.39	1.37	2.28	.42	3.24	2.01	1.29	5.94	1.46	2.31	27.03
Surrey	6 Haslemere (Hazelhurst).....	2.27	6.86	2.57	3.59	3.15	.52	1.48	3.23	2.05	7.37	2.44	3.70	39.23
"	6 Woking (The Green).....	1.43	3.64	2.99	1.64	2.64	.35	1.66	1.45	1.46	6.09	1.64	2.24	27.23
Kent	1 Tenterden (View Tower).....	1.48	3.97	2.24	2.11	3.30	.61	.63	1.83	1.93	6.18	2.45	2.91	29.64
"	1 Folkestone (Cheriton Road)...	1.68	3.59	1.80	1.63	3.68	.65	.60	1.59	2.05	6.33	1.88	3.12	28.60
"	2 St. Peter's Court.....	1.54	2.37	1.08	1.36	2.40	.65	.37	1.94	1.52	4.57	2.24	2.17	22.21
"	3 Teynham (New Gardens) ....	1.08	3.01	1.83	1.31	3.59	.75	.75	1.18	1.25	5.09	2.17	2.35	24.36
"	4 Rochester (Knight's Place) ...	1.37	3.52	2.12	1.73	2.78	1.13	.66	1.68	1.79	5.41	2.22	2.31	26.72
"	5 Westerham (Quebec Square)...	1.94	3.98	2.87	2.79	3.02	.68	3.13	2.58	2.09	7.44	2.39	2.98	35.89
Sussex	1 Selsey (Large Acres).....	1.41	4.42	2.03	3.67	2.50	.41	1.75	2.56	2.30	5.60	1.96	3.39	32.00
"	3 Worthing (Victoria Park).....	1.55	4.34	1.95	3.60	2.57	.45	1.26	1.95	2.48	5.61	1.94	2.92	30.62
"	4 Balcombe (The Gables).....	2.01	5.64	3.01	3.08	3.51	.57	4.52	1.97	2.22	7.64	2.62	4.25	41.04
"	5 Eastbourne (Wilmington Sq.)	1.41	4.11	2.45	2.14	2.84	.65	3.20	2.24	3.38	7.10	2.62	3.71	35.85
"	5 Hastings (Cemetery).....	1.08	3.73	2.52	1.77	3.25	.50	.85	2.14	2.36	6.90	2.12	3.49	30.71
"	7 Crowborough (Uckfield Lodge)	1.98	5.54	3.18	3.56	4.55	.63	3.26	3.20	2.88	7.95	2.63	4.65	44.01
Hampshire	1 Totland Bay (Aston House)...	1.30	4.70	1.73	3.39	2.87	.44	1.35	1.86	3.15	5.74	1.36	2.81	30.70
"	4 Ashley (Upper Somborne) ...	1.91	5.92	2.04	3.52	1.93	.37	1.09	2.65	2.24	6.09	2.03	3.48	33.27
"	5 Bps. Waltham (Swanmore Ho.)	2.34	7.47	2.43	3.98	2.68	.51	1.07	3.17	2.13	7.80	2.44	4.92	40.94
"	8 Sherborne St. John Rectory..	1.60	4.22	2.41	3.09	1.98	.37	.83	2.41	2.48	5.87	2.20	2.54	30.00
Berkshire	4 Upton Nervet Rectory .....	1.77	3.95	2.72	2.90	1.86	.50	1.15	2.34	1.90	5.33	2.00	2.88	29.30
"	5 Upton .....	1.43	3.35	2.60	2.38	1.90	.35	.84	2.95	1.83	4.18	1.63	2.44	25.88
Hertfordshire	2 St. Albans (County Museum)	1.35	3.80	2.63	1.66	1.52	.55	3.53	1.98	2.03	4.91	1.49	2.82	28.27
"	3 Royston (Therfield Rectory)...	1.28	3.01	1.84	1.41	1.45	.82	2.88	3.84	2.02	3.95	1.47	2.30	26.27
Buckinghamshire	3 Slough (Upton) .....	1.41	3.67	2.19	2.33	2.01	.37	2.52	2.08	1.57	5.68	1.53	2.33	27.69
"	3 Hampden House.....	1.54	4.56	2.20	2.33	2.12	.63	2.58	3.00	2.21	5.30	1.78	3.34	31.59
"	5 Wolverton (St. George's Vic.)	1.30	3.29	1.76	1.98	1.49	.46	2.59	2.72	3.24	3.10	1.41	2.90	25.92
Oxfordshire	2 Wootton Rectory.....	1.78	4.77	2.01	2.27	1.54	.41	1.89	2.73	3.24	3.81	1.55	2.65	28.64
Northamptonshire	1 Naseby Reservoir .....	1.33	3.73	1.67	2.01	1.25	.73	3.15	2.16	3.05	4.12	1.84	2.70	27.74
"	4 Wellingborough (Swanspool)...	1.13	3.63	1.77	1.72	1.49	.53	2.82	1.77	2.61	3.08	1.87	2.34	24.76
Huntingdonshire	1 St. Ives (Slepe House).....	1.13	2.71	2.05	.86	1.06	.73	2.10	1.85	2.57	3.49	1.40	2.16	22.11
Bedfordshire	3 Shillington .....	1.28	3.02	2.32	1.85	1.28	.65	3.90	2.74	2.26	3.79	1.01	2.13	26.23
Cambridgeshire	2 Littleport (Highfield House)...	1.46	2.67	1.96	.88	.90	.43	2.30	2.65	1.73	3.56	1.12	2.32	21.98

TABLE XVII.—(con.). ENGLAND—(con.).

County and River Division.	Station.	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
Cambridgeshire ..	Wisbech (Bank House) .....	1.49	2.93	2.31	1.05	1.21	.48	4.08	2.34	2.16	2.87	1.44	2.57	24.93
Essex .....	Leigh (Harley Street) .....	1.12	2.36	1.71	1.53	1.60	.92	.96	1.61	1.20	4.38	2.06	2.11	21.56
" .....	Ongar (Marden Ash) .....	1.09	3.02	1.22	1.49	1.29	.62	1.45	1.60	1.63	4.31	1.84	1.83	21.39
" .....	Bradwell-on-Sea (Bradwell Hall)	1.35	2.83	1.66	.87	1.66	.84	1.44	1.73	1.57	4.78	2.90	2.10	23.73
" .....	Shalford (Littles) .....	1.24	3.00	1.66	1.50	1.31	.70	1.52	1.63	1.86	4.27	2.06	2.17	22.92
Suffolk .....	Capel St. Mary School .....	1.68	3.84	1.33	1.09	1.17	.54	1.95	1.79	1.82	4.04	3.05	2.88	25.18
" .....	Hawkedon Rectory .....	1.66	2.85	1.39	1.33	1.40	.67	1.62	2.73	3.04	4.26	2.09	2.73	25.77
" .....	Orford (The Gables) .....	1.28	3.03	1.01	.99	1.22	.64	1.51	1.74	1.59	4.01	3.37	2.80	23.19
" .....	Halesworth Rectory .....	1.54	3.32	1.40	.82	1.30	.82	2.35	2.59	1.52	3.92	3.14	3.21	25.93
" .....	Yarmouth (Burgh Hall) .....	1.43	3.35	1.17	.65	1.35	.86	1.90	2.37	1.49	3.19	2.85	2.24	22.85
" .....	Drinkstone .....	1.69	3.25	1.30	1.11	1.51	.52	1.63	3.01	2.10	3.90	2.12	2.71	24.85
Norfolk .....	Diss (The Cedars) .....	1.38	2.61	1.11	.80	1.16	.61	2.54	3.07	1.80	2.99	2.15	2.04	22.26
" .....	Wymondham .....	1.75	3.86	1.93	1.13	1.53	.80	3.43	3.00	1.88	4.05	2.95	3.36	29.67
" .....	Aylsham (Rippon Hall) .....	1.90	3.24	1.66	1.08	1.52	1.07	3.18	2.66	1.41	3.39	3.43	3.33	27.87
" .....	Sandringham House Gardens ..	1.87	3.08	1.46	1.48	2.20	.95	3.28	1.82	2.14	3.43	2.15	2.54	26.40
" .....	Blakeney .....	1.96	2.71	1.50	1.09	2.05	.82	2.66	1.70	1.43	3.12	3.18	2.86	25.08
" .....	Thetford (Waterworks) .....	1.66	2.66	1.25	1.12	1.37	.55	2.48	2.73	2.06	3.61	2.16	3.07	24.72
" .....	Swaffham .....	1.77	3.78	1.46	.94	1.56	.63	2.81	2.56	1.85	3.18	2.14	3.77	26.45
Wiltshire .....	Bradford (Manvers House) .....	1.67	5.54	1.69	2.00	1.30	.67	1.57	2.99	3.17	5.25	2.44	3.21	31.50
" .....	Mere (Charnage) .....	1.83	6.58	2.32	2.83	1.85	.74	1.44	2.72	3.63	5.56	2.57	3.94	36.01
" .....	Larkhill (School of Artillery) ..	1.55	5.04	1.68	2.48	1.24	.50	1.16	2.65	2.32	5.17	1.50	3.39	28.68
" .....	Marlborough (Mildenhall) ....	2.14	4.94	2.47	2.80	1.05	.27	.99	2.98	2.24	5.49	2.01	3.02	30.40
Dorsetshire .....	Weymouth (Springfield) .....	1.51	5.60	1.44	3.18	1.69	.61	.71	1.43	3.20	5.42	1.70	3.51	30.00
" .....	Beaminster (Hamilton Lodge)	2.45	9.26	1.85	2.87	1.80	.56	1.39	2.89	3.90	6.38	2.52	5.07	40.94
" .....	Winterbourne Whitchurch Vic.	2.05	7.80	2.02	4.25	2.40	.52	.79	2.65	3.62	7.00	2.02	4.47	39.59
" .....	Wimborne (Codford House) .....	1.57	6.78	1.86	3.52	1.79	.42	.85	2.48	2.91	5.71	2.04	3.93	33.86
South Devonshire ..	South Brent (Great Aish) ....	4.92	13.29	3.92	6.36	3.86	.55	1.92	4.97	5.63	12.37	4.59	9.15	71.53
" .....	Teignmouth (Den Gardens) .....	2.78	7.36	1.96	3.02	1.87	.19	.59	2.30	2.22	4.84	2.27	2.28	30.20
" .....	Crediton (Okefeld) .....	1.30	6.72	1.03	2.53	1.99	.48	1.60	1.74	2.52	5.32	2.59	3.30	32.60
" .....	Ottery St. Mary (West Hill) ..	2.00	8.67	1.53	3.40	1.37	.46	1.70	2.40	3.47	5.09	2.42	3.39	35.90
" .....	Morthoe (Twicken House) ....	2.63	8.30	1.58	2.62	2.56	1.22	3.68	3.73	3.70	6.73	4.13	4.83	45.71
North .....	Chulmleigh (Leigh House) ....	2.93	7.49	1.65	2.67	2.46	.69	2.03	2.35	3.52	6.30	3.54	4.97	40.60

TABLE XVII.—(con.) ENGLAND—(con.).

County and River Division.	Station.	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
North Devonshire	Dolton (Hilliers) .....	3.08	6.93	1.20	2.86	2.66	.86	2.09	3.21	3.70	6.90	3.78	4.66	41.93
Cornwall	Redruth (Trewigie) .....	3.24	9.17	2.77	4.28	3.24	.63	1.23	2.88	3.24	6.56	4.83	5.07	47.14
"	Newquay (Tresillian House) ..	3.03	8.62	2.18	3.44	2.83	.92	1.46	2.14	3.14	6.57	4.06	4.31	42.70
"	Morwenstow Vicarage .....	1.75	7.20	1.34	2.38	1.77	.17	2.91	2.46	3.76	6.56	4.30	4.77	40.37
"	Penzance (Morrab Garden) ..	2.75	7.55	2.22	3.63	3.17	.41	1.19	2.29	2.80	5.64	4.54	4.59	40.78
"	St. Austell (Trevarna) .....	3.74	9.35	2.60	3.94	3.59	.51	.94	2.73	3.78	6.94	4.51	5.63	48.26
"	Liskeard (Trevillis) .....	4.04	10.94	3.35	3.95	2.40	.55	1.60	2.67	3.81	7.82	4.75	6.31	52.19
"	Devonport (Cremyll) .....	2.83	8.50	2.70	3.65	2.47	.30	1.13	3.05	3.63	6.13	2.72	5.11	42.22
"	Altarnon Vicarage .....	5.50	12.47	2.45	4.77	4.02	.95	1.96	3.48	5.61	9.65	6.53	8.35	65.74
"	Tresco Abbey .....	1.48	5.51	1.73	4.16	2.18	.36	1.35	1.76	2.32	5.17	3.22	2.77	32.01
Somersetshire	Street (Hind Hayes) .....	1.45	5.98	1.53	1.78	1.12	.45	1.52	2.61	2.99	5.14	2.17	2.71	29.45
"	Burnham (Chalbury) .....	1.53	6.70	1.20	2.14	1.54	.66	1.42	2.61	2.96	4.60	2.24	2.69	30.29
"	Taunton (The Park) .....	1.74	7.86	1.34	2.45	2.22	.57	.88	1.93	2.58	5.14	2.22	2.82	31.75
"	Brushford Rectory .....	4.15	11.32	1.56	3.50	2.38	.62	2.99	4.16	3.86	8.18	4.68	5.23	52.63
Gloucestershire	Avening House .....	2.11	6.61	1.89	2.97	1.73	.50	1.31	3.02	2.98	5.68	1.90	3.65	34.35
"	Cheltenham (Old Bath Road) ..	1.51	5.98	1.95	2.75	1.69	.40	1.40	2.28	2.36	5.36	1.60	2.67	29.95
"	Mickleton (Bank House) .....	1.66	4.72	1.98	2.44	1.88	.22	2.57	1.68	2.34	4.80	1.27	2.49	28.05
"	Clifton (Harley Place) .....	1.94	7.87	1.24	2.66	1.98	.58	2.20	4.57	3.20	5.34	2.89	2.97	37.44
"	Lechdale (Claydon House) .....	1.58	4.02	2.54	2.06	1.17	.37	1.78	2.03	2.41	4.28	1.27	3.21	26.72
Herefordshire	Ross (Birchlea) .....	1.08	6.89	1.28	2.55	1.67	.47	2.85	2.27	2.26	5.69	1.77	2.05	30.83
"	Weobley School .....	1.28	7.60	1.05	2.17	1.47	.44	2.35	2.54	1.66	4.64	1.36	1.75	28.31
Shropshire	Ashford House .....	1.72	6.75	1.58	2.79	1.39	.36	3.08	2.26	2.09	4.64	2.10	2.98	31.74
"	Clun Forest (Cwm Ffrydd) ..	3.04	9.60	1.72	2.50	2.76	.89	3.45	5.46	2.98	7.27	3.21	3.10	45.98
"	Much Wenlock (Willey Park) .	1.63	6.25	1.48	2.45	2.19	.59	3.15	3.32	1.89	4.27	2.05	3.51	32.78
Staffordshire	Market Drayton (Old Springs)	2.29	4.26	1.53	1.82	3.60	.50	3.03	2.95	2.91	3.89	2.31	3.98	33.07
"	Lichfield (St. John Street) ....	1.45	4.71	1.32	2.38	2.11	.51	5.58	2.30	2.89	3.39	1.82	3.29	31.75
"	Stafford (Rising Brook) .....	2.07	4.77	1.36	2.25	2.52	.38	5.75	2.30	2.22	3.31	1.96	4.19	33.08
"	Ashbourne (Mayfield House) ..	2.85	5.71	2.50	2.81	3.24	.77	4.56	3.72	3.44	2.73	3.07	4.46	39.86
Worcestershire	Kempsey (The Lodge) .....	1.27	4.74	1.61	2.95	1.82	.20	3.93	1.73	1.82	4.50	1.48	2.45	28.50
"	Bewdley School .....	2.07	6.04	1.50	3.02	1.30	.32	4.15	1.57	1.86	4.25	1.48	3.21	30.77
"	Dudley (Borough Cemetery) ..	1.99	4.60	.87	2.36	1.13	.00	3.56	2.03	2.40	3.49	1.43	2.24	26.10
"	Alvechurch (High Croft) .....	2.14	5.45	2.40	3.16	1.69	.45	2.91	2.83	2.79	4.05	1.72	3.60	33.19

TABLE XVII (con.). ENGLAND—(con.).

County and River Division.	Station.	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
Warwickshire .. 1	Coventry (Keresley Grange) ..	1.97	4.25	1.96	2.02	1.59	.43	3.46	2.37	3.49	3.35	1.73	3.42	30.04
" .. 3	Farnborough .....	1.67	4.95	1.95	2.59	1.54	.54	2.81	2.24	2.73	5.91	2.37	3.32	32.62
Leicestershire .. 4	Loughboro' (Nan Pantan Res.)	1.33	4.35	1.38	2.14	2.07	.68	3.98	2.46	3.54	2.46	2.19	2.97	29.55
" .. 4	Belvoir Castle Gardens .....	1.19	3.37	1.19	1.71	1.94	.69	3.91	2.21	2.76	2.55	2.17	2.71	26.40
Rutlandshire .. 1	Uppingham (Ridlington) .....	1.25	3.59	1.63	1.82	1.19	.69	3.64	2.11	2.86	3.36	2.00	2.48	26.62
Lincolnshire ... 2	Market Deeping (Wilsthorpe) ..	.94	2.56	1.78	1.15	.87	.54	2.98	1.92	2.29	2.09	1.48	1.63	20.23
" ... 3	Boston (Black Sluice, Skirbeck)	1.44	3.16	1.71	.85	1.84	.50	2.11	2.37	2.28	2.43	2.41	3.03	24.13
" ... 3	Sleaford (Kesteven Co. Asylum)	1.66	4.20	1.52	.73	1.66	.75	3.16	1.60	2.12	2.09	2.38	2.75	24.62
" ... 3	Willingham-by-Stow .....	1.80	3.96	1.36	1.11	2.94	1.52	3.44	3.86	2.63	1.64	2.32	2.75	29.33
" ... 4	Skegness (Marine Gardens) ...	1.25	3.37	2.05	.86	1.57	.52	1.75	2.56	2.82	1.49	2.43	2.75	23.42
" ... 4	Louth (Westgate) .....	1.70	4.27	1.79	1.20	2.34	.77	3.81	2.73	3.73	1.73	3.61	2.70	30.38
" ... 5	Brigg .....	1.67	3.40	1.60	1.54	3.27	.71	2.96	2.36	2.91	1.53	3.28	2.76	27.99
Nottingham .... 2	Newark .....	1.50	3.52	.99	1.84	2.30	.86	3.91	2.66	2.23	1.93	1.99	2.35	26.08
" ... 5	Mansfield (West Bank) .....	1.27	5.13	1.80	2.15	3.36	.69	3.54	2.73	2.82	1.88	2.64	3.29	31.30
Derbyshire ..... 5	Littleover (The Knoll) .....	1.33	3.53	1.38	1.67	2.36	.60	5.25	2.44	2.29	2.20	2.05	3.15	28.25
" ..... 6	Matlock Bath (Lower Tower) ..	1.96	6.47	2.12	2.43	3.12	.71	4.29	3.43	3.60	2.45	3.75	3.92	38.25
" ..... 6	Buxton (Devonshire Hospital)	6.09	7.04	2.29	3.93	4.86	1.93	3.63	5.26	6.01	5.63	6.10	6.13	58.90
Cheshire ..... 1	Altrincham (Barrington House)	2.60	4.60	1.51	2.70	3.12	.80	4.10	4.47	4.28	4.20	4.08	4.23	40.69
" ..... 2	Middlewich (Bostock Hall) ...	2.29	4.27	1.67	2.48	3.53	.85	3.47	3.45	3.35	4.37	1.96	4.16	35.85
" ..... 4	Eccleston .....	1.54	3.63	.89	1.76	2.91	.35	3.10	2.94	3.23	3.41	1.85	3.81	29.42
" ..... 4	Neston (Vine House) .....	1.48	3.31	.71	1.74	3.46	.44	2.74	2.56	2.63	3.87	2.62	3.63	29.19
South Lancashire 3	Bolton (Bloomfield, Heaton) ..	3.90	5.77	1.89	3.25	2.95	1.41	5.38	5.94	4.99	5.37	5.03	6.06	51.94
Central " 1	Burnley (Swinden) .....	5.37	7.56	2.17	4.32	4.08	1.33	5.67	6.52	6.60	6.13	7.34	4.47	61.56
" " 3	Southport (Hesketh Park) ...	2.34	3.88	1.38	2.61	2.48	.58	2.97	4.73	3.57	4.57	4.86	4.91	38.88
North " 4	Lancaster (Greg Obsv.) .....	4.52	5.09	1.16	3.31	3.36	.97	5.11	6.46	4.64	7.73	6.43	4.90	53.68
" " 5	Barton (Newsham House) ...	3.10	4.16	1.54	2.99	3.63	1.33	4.40	6.07	4.25	5.15	5.33	5.05	47.00
Yorkshire, W.R. 2	Settle (Gas Works) .....	4.38	7.22	2.18	4.10	4.34	.94	4.23	6.39	5.87	6.89	7.94	4.92	59.40
" " 7	Sheffield (Stumperlow Hall) ..	2.13	7.00	2.25	2.84	3.95	.77	4.34	3.74	3.02	2.84	6.08	2.99	41.95
" " 7	Doncaster (Avenue Road) ....	1.13	4.60	1.46	1.74	3.29	1.22	3.65	2.34	2.39	1.22	2.45	2.75	28.24
" " 8	Meltham (Harewood Lodge) ..	4.40	7.45	2.77	3.49	5.29	.97	4.73	4.65	3.90	5.04	8.63	3.70	55.02
" " 9	Garforth (Manor Farm) .....	1.09	3.63	1.52	1.11	2.72	.69	3.33	2.36	2.04	1.65	2.12	2.54	24.80
" " 10	Ilkley (Spence's Garden) .....	2.93	7.22	2.35	3.19	3.99	.69	3.53	4.94	4.14	5.24	4.99	3.26	46.47

TABLE XVII (con.). ENGLAND—(con.).

County and River Division.	Station.	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
Yorkshire, W.R.	York (Cherry Hill) .....	1.84	3.90	1.42	1.27	2.70	.83	2.31	3.22	2.87	2.07	2.19	3.17	27.79
"	Buckden .....	4.50	8.63	2.48	3.95	6.02	1.28	5.03	7.99	6.53	9.02	10.54	5.77	71.74
"	Knarborough (The Abbey) ..	1.32	4.45	.99	2.37	2.94	.99	2.96	3.20	2.27	2.91	2.92	3.22	30.54
"	Birdsall Gardens .....	1.93	5.25	1.65	1.76	2.85	.67	3.80	4.68	2.83	2.22	3.82	3.35	34.81
"	Patrington .....	1.44	3.41	1.89	1.40	2.92	.63	2.28	2.36	2.93	1.33	2.67	2.93	26.19
"	Holme-on-Spalding Moor .....	1.52	3.69	1.67	1.44	2.98	.74	5.12	2.88	3.20	1.45	2.37	3.15	30.21
"	Beverley (E. Riding Mental Hosp.)	1.40	3.70	1.44	1.59	3.84	.52	2.51	2.57	3.01	1.63	2.52	2.92	27.65
"	Bridlington .....	1.77	3.57	1.38	1.49	3.15	.86	3.34	2.73	2.03	1.68	2.88	3.26	28.14
"	Masham Moor (Roundhill Res.)	2.94	7.56	2.19	3.40	3.59	1.23	3.35	5.48	4.38	4.76	6.46	3.87	49.21
"	Felixkirk (Mount St. John) ...	1.70	4.51	1.58	1.59	2.17	.85	2.75	3.47	2.82	2.70	3.24	3.01	30.39
"	Reeth (Arkengarthdale) .....	3.27	5.46	1.51	2.70	3.78	1.06	2.98	6.46	3.76	7.41	8.47	2.99	49.85
"	Bilsdale Priory .....	2.19	4.79	1.93	1.98	3.38	1.06	3.07	3.68	2.92	3.22	5.22	3.44	36.88
"	Whitby (Mulgrave Castle) .....	2.35	3.61	1.07	1.43	3.67	1.07	3.00	3.69	1.94	2.02	4.47	3.41	31.73
"	Middlesbrough (Albert Park) ..	1.18	2.04	1.28	1.31	2.40	.74	2.29	2.67	1.56	1.99	3.79	2.11	23.36
Durham	Weardale W.W. (Waskerley) ..	1.29	3.37	2.25	1.94	2.79	1.10	2.60	5.56	3.52	3.15	4.27	2.21	34.05
"	Sunderland (W. Hendon Ho.) ..	1.11	3.49	1.30	1.77	2.54	1.05	1.23	3.07	1.63	2.28	4.40	2.50	26.37
Northumberland	Corbridge (Howden Dene) ....	.86	3.71	1.11	1.96	2.37	.96	1.91	5.05	1.77	2.02	3.80	2.18	27.70
"	Bellingham (High Green Manor)	2.19	4.37	1.46	2.22	1.92	1.48	2.59	6.05	2.66	3.38	4.61	2.42	35.35
"	Morpeth (Cockle Park) .....	1.38	3.97	1.45	1.84	2.00	.73	1.78	4.00	1.96	2.36	3.60	2.47	27.54
"	Font. Res. (Tynemouth W.W.)	1.95	4.75	1.83	2.27	2.64	.86	1.88	4.57	2.20	3.16	3.96	2.39	32.46
"	Glantton (Glanton Pyke Gardens)	1.73	4.29	1.39	2.33	2.45	1.15	1.89	4.59	1.88	2.83	3.82	2.21	30.56
"	Kirknewton (Southernknowe) .	2.13	8.03	2.05	3.78	3.98	1.14	1.71	6.47	1.91	3.02	4.64	3.42	42.28
Cumberland	Penrith (Newton Rigg) .....	2.49	5.24	1.59	3.04	3.28	.71	2.67	7.47	4.35	6.26	4.85	3.53	45.48
"	Geltsdale .....	2.39	4.53	1.38	3.45	2.74	1.21	3.26	8.35	3.55	5.23	4.47	2.80	43.36
"	Carlisle (Scaleby Hall) .....	1.99	3.39	.80	1.00	1.53	.71	2.36	8.24	3.43	5.46	4.02	2.94	35.87
"	Whitehaven (Irish Street) ....	3.58	6.02	2.01	4.13	1.75	1.37	4.30	8.91	6.29	8.64	5.54	5.68	58.22
"	Silecroft (Old Chappels) .....	7.02	8.37	1.90	4.75	3.44	1.50	5.74	7.99	7.62	9.60	7.26	9.16	74.35
Westmorland	Kirkby Stephen (Redman Ho.)	4.15	6.42	1.94	3.56	4.07	1.60	3.16	7.82	3.63	8.71	6.39	3.77	55.22
"	Mickleden .....	14.75	20.40	7.36	9.71	10.75	4.42	10.72	24.75	18.06	28.28	20.40	14.59	184.19
"	Kendal (Crosthwaite Vic.) .....	5.12	6.37	1.99	4.10	3.05	.86	4.72	8.52	7.09	9.67	8.55	6.32	66.36

**TABLE XVII.—(con.). MONMOUTH AND WALES, AND THE ISLANDS.**

County and River Division.	Station.	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
Monmouth . . . . .	Newport W.W. (Nantypriidd).	2.02	7.91	1.84	3.28	1.87	1.01	3.43	3.83	3.44	7.53	4.02	3.78	43.96
" . . . . .	Abergavenny (The Chain) . . . .	1.75	11.85	1.52	3.68	2.21	.27	1.57	2.73	2.68	6.80	2.65	2.72	40.43
Glamorgan . . . . .	Swansea (Victoria Park) . . . . .	3.56	8.40	2.42	3.35	3.40	.86	3.54	5.13	3.71	6.23	4.66	5.24	50.50
" . . . . .	Bridgend (Highmead) . . . . .	4.42	9.56	2.29	3.80	3.30	.73	3.23	4.89	4.07	7.36	4.33	5.54	53.52
" . . . . .	Treherbert (Tyn-y-waun) . . . . .	7.73	20.75	3.50	6.20	4.97	2.25	5.76	10.37	8.48	15.58	8.81	10.47	104.87
" . . . . .	Cardiff (Roath Park) . . . . .	2.71	8.73	1.68	3.06	2.65	.77	2.27	4.15	3.70	7.26	3.69	4.35	45.02
Carmarthen . . . . .	Carmarthen (The Friary) . . . . .	3.54	8.84	2.29	2.97	2.99	1.19	2.82	5.16	4.42	7.67	5.60	5.33	52.82
" . . . . .	Llandovery (Nantyhogfaen). . . .	4.62	9.27	2.04	3.25	5.01	.90	3.32	4.67	4.72	7.47	5.71	5.64	56.62
Pembroke . . . . .	St. Davids . . . . .	1.62	8.71	1.32	1.52	1.59	.95	3.88	3.29	2.45	3.26	3.55	3.37	35.51
" . . . . .	Saundersfoot (Hean Castle) . . . .	2.36	7.74	1.20	3.73	2.70	.97	4.07	3.73	2.89	5.12	3.83	5.62	43.96
" . . . . .	Haverfordwest (Grammar Schl.) . .	2.89	11.38	3.03	3.36	1.95	1.24	4.28	6.15	4.05	7.95	5.63	5.95	57.86
" . . . . .	Fishguard (Langton, Dwrbach) . . .	2.99	10.30	2.21	3.79	2.09	1.33	4.72	4.12	3.74	6.77	5.03	5.33	52.42
Cardigan . . . . .	Aberystwyth (Gogerddan) . . . . .	5.53	8.40	1.37	3.77	5.05	2.01	5.43	3.60	6.98	9.23	6.83	4.62	62.82
" . . . . .	Cardigan (County School) . . . . .	3.10	10.08	1.75	2.64	2.46	.86	2.20	2.90	3.44	8.21	5.12	3.59	46.35
" . . . . .	Lampeter (Falcondale) . . . . .	4.10	11.09	2.13	3.11	4.45	1.56	4.12	4.41	5.46	8.54	6.46	5.84	61.27
Brecon . . . . .	Swansea W.W. (Cray Res.) No.1 . .	5.35	16.63	3.46	5.38	4.87	1.68	4.74	6.90	6.55	11.53	6.88	6.32	80.29
" . . . . .	Birmingham W.W.(Cors-yr-hwch) . .	12.00	19.16	4.70	5.75	7.95	2.00	8.63	9.70	9.02	15.84	9.25	12.40	116.40
Radnor . . . . .	Llandrindod Wells (Kimberley) . . .	2.72	8.86	1.87	2.57	2.67	.66	2.69	2.98	2.68	6.56	3.19	2.99	40.44
Montgomery . . . . .	Newtown (Penarth Weir) . . . . .	2.63	8.23	1.57	2.07	2.88	.40	2.91	3.63	3.00	6.60	3.65	2.09	39.66
" . . . . .	Carno (Council School) . . . . .	5.51	7.35	2.64	4.07	4.22	.51	3.22	5.10	4.60	10.07	4.97	6.50	58.76
" . . . . .	Llandysilio Rectory . . . . .	1.53	4.35	1.08	1.75	2.16	.74	2.80	2.17	1.73	5.43	2.40	2.70	28.84
" . . . . .	Lake Vyrnwy (Bk Cynon Isaf) . . .	4.74	11.88	2.86	4.40	5.75	1.58	3.97	7.32	5.17	10.77	5.96	5.15	69.55
Flint . . . . .	Rhyl Sewage Works . . . . .	1.85	3.41	.73	1.46	2.51	.55	2.57	2.17	2.74	4.52	4.41	3.44	30.36
Denbigh . . . . .	Wrexham (Packsaddle Res.) . . . .	2.39	6.36	1.52	2.25	4.13	.68	1.64	4.75	2.67	5.04	3.01	4.05	38.49
" . . . . .	Gyffylliog (Fachlwyd Hall) . . . .	3.03	5.50	1.40	1.98	4.80	.87	1.93	3.80	3.15	7.41	4.90	4.49	43.26
" . . . . .	Pentre Foelas (Voelas Hall) . . . .	4.59	11.18	2.85	3.99	4.66	1.99	3.04	7.23	5.54	11.01	9.25	5.30	70.63
Merioneth . . . . .	Dolgelly (Bryntirion) . . . . .	9.57	13.22	2.25	4.61	6.48	2.66	7.93	7.01	8.48	12.00	7.74	8.18	90.13
" . . . . .	Trawsfynydd Camp . . . . .	8.09	14.82	4.51	5.55	6.07	2.05	5.43	7.61	8.67	11.57	8.94	7.83	91.14
" . . . . .	Llandudno . . . . .	1.98	4.54	.77	1.75	2.64	.69	2.22	2.49	3.01	4.41	4.94	3.18	32.62
Carnarvon . . . . .	Bethesda (Penrhyn Quarries) . . . .	6.49	13.19	2.43	5.79	5.24	2.34	4.96	6.38	9.71	10.95	10.96	7.32	85.76
" . . . . .	Abersoch . . . . .	3.55	7.25	1.59	3.09	2.58	1.29	4.31	5.13	4.80	6.91	6.68	4.98	52.16
" . . . . .	Snowdon (Cwm Dyli) . . . . .	15.31	17.34	4.55	8.62	10.01	5.22	9.93	16.74	14.16	21.83	20.95	15.47	160.13

TABLE XVII (con.). MONMOUTH AND WALES—(con.).

County and River Division.	Station.	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
Anglesey .....	Holyhead (Salt Island) .....	2.35	4.84	1.12	2.58	1.23	.70	2.94	4.47	3.96	4.62	4.74	3.32	36.87
" .....	Llanerchymedd (Llwydrth Esgb)	3.45	5.34	1.37	3.43	2.28	.99	3.48	4.66	4.79	6.22	6.82	3.85	46.68
ISLE OF MAN.														
Isle of Man .....	Douglas (Borough Cemetery) ..	3.77	4.72	1.69	2.72	2.30	1.24	3.10	6.85	4.05	6.77	4.27	5.78	47.26
" .....	Ramsey (North Promenade) ..	3.38	7.00	2.00	3.57	1.97	.49	2.16	6.52	4.67	7.01	3.55	7.71	50.03
CHANNEL ISLANDS.														
Jersey .....	St. Aubins (Belle Vue) .....	2.01	4.32	2.47	3.14	3.20	.83	1.08	1.47	3.28	4.59	4.25	3.64	34.28
Guernsey .....	St. Martin's (Les Blanchés) ..	2.11	5.81	2.25	2.40	4.54	.54	1.19	1.85	2.73	6.56	4.38	3.66	38.02
Sark .....	Pointe Robert .....	1.76	6.24	2.26	2.91	2.90	.58	1.81	1.61	3.01	7.05	3.27	3.73	37.13
Alderney .....	St. Anne's Rectory .....	1.67	5.62	2.14	2.62	4.45	.57	.90	1.30	2.30	6.78	4.04	3.48	35.87
SCOTLAND.														
Wigtownshire .. 3	Stoneykirk (Ardwell House) ..	2.91	5.87	1.45	2.87	1.94	1.29	3.34	7.15	3.95	4.02	4.43	8.00	47.22
" .. 4	Whithorn (Glasserton) .....	3.00	5.37	1.10	2.22	1.90	1.13	3.79	7.99	3.81	4.67	4.25	5.70	44.93
" .. 4	Kirkcowan (Craighlaw) .....	5.17	7.31	2.30	3.24	2.54	1.79	4.07	9.72	6.01	7.39	6.55	8.09	64.18
Kirkcudbrightshire 3	Dalry (Glendaroch) .....	5.22	8.47	2.80	3.79	1.94	1.26	3.99	8.87	7.45	7.60	7.49	6.72	65.60
" .. 4	Dalbeattie (Kirkennan) .....	3.34	6.52	2.15	4.10	2.29	1.51	3.77	9.63	5.57	7.02	6.06	6.04	58.00
Dumfriesshire .. 4	Dalton (Kirkwood) .....	2.78	6.76	1.90	5.44	2.57	1.32	5.78	13.49	6.29	8.61	4.72	4.89	64.55
" .. 4	Moffat (Craigielands) .....	5.68	8.55	1.75	4.25	2.20	1.20	5.42	8.62	7.06	8.93	5.75	5.15	64.56
" .. 5	Langholm (Ewes) .....	4.54	6.91	2.15	4.02	2.21	1.76	5.75	12.10	6.80	8.27	5.88	5.10	65.49
Roxburghshire .. 3	Jedburgh (Jedneuk) .....	1.62	1.80	.91	1.73	1.94	.94	2.17	4.70	1.63	2.37	3.16	1.77	24.74
Selkirkshire ... 2	Ettrick Manse .....	5.90	7.15	2.98	4.73	3.28	1.87	4.66	7.97	6.79	8.54	6.17	4.92	64.96
" ... 4	Galashiels (The Peel Clovenfords)	2.31	5.21	1.27	3.56	3.35	1.64	2.41	5.68	2.36	3.28	3.43	3.35	37.85
Peeblesshire ... 2	Stobo Castle .....	4.03	5.11	1.59	3.68	3.00	1.57	3.73	6.49	3.55	4.01	4.93	3.45	45.14
Berwickshire ... 2	Earnsclough Burn (Blythe Rig)	1.98	6.96	1.38	3.27	4.45	1.80	1.79	5.43	3.21	3.38	3.76	4.18	41.59
" ... 4	Marchmont House .....	1.67	4.23	1.03	1.63	2.16	1.10	1.80	4.54	1.71	3.54	3.58	3.13	30.12
Haddingtonshire 5	North Berwick Reservoir ....	.94	2.83	.57	1.98	1.59	.96	1.15	4.17	2.29	1.32	2.32	2.66	22.78
Midlothianshire . 5	Balerno (Cockburn Hill) .....	3.05	3.93	1.72	3.14	2.24	1.39	3.45	5.12	2.83	3.31	2.84	2.80	35.82



TABLE XVII (con.). SCOTLAND—(con.).

County and River Division.	Station.	Jan.	Feb.	March.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
Midlothianshire . . . 5	Edinburgh (Royal Observatory)	1.55	2.34	.77	1.79	1.53	1.06	2.86	4.31	1.60	1.80	2.25	2.35	24.21
Lanarkshire . . . 4	Airdrie (Hillend Reservoir) . . .	4.00	3.83	1.43	3.13	2.34	1.35	5.54	7.11	5.48	5.70	4.10	3.20	47.21
" . . . 5	Leadhills . . . . .	6.93	11.53	4.12	6.03	3.47	1.90	6.90	13.31	9.76	10.90	6.48	6.25	87.58
" . . . 5	Strathaven (East Overton Ho.)	5.54	3.62	1.69	3.82	2.32	1.41	5.23	7.46	6.73	7.57	5.71	4.06	54.80
Ayrshire . . . . . 3	Dalry (Munnock Reservoir) . . .	6.06	5.45	2.51	4.58	1.58	1.78	5.17	7.30	8.53	7.29	4.55	5.87	60.67
" . . . . . 6	Maybole (Culzean Castle Gdns.)	3.84	4.97	1.41	2.69	1.28	1.93	3.86	6.48	6.05	4.81	4.61	4.48	46.41
" . . . . . 8	Colmonell (Knockdolian) . . . .	4.66	7.75	2.01	2.44	2.09	1.73	4.98	7.62	5.96	6.37	6.96	7.46	60.03
" . . . . . 13	Glen Afton (Ayr Sanatorium) . .	3.34	6.88	2.98	3.47	3.19	2.19	4.32	8.39	10.01	9.13	6.22	5.57	65.69
Renfrewshire . . . 2	Houston Manse . . . . .	5.31	5.59	2.51	3.78	1.71	1.38	4.35	5.93	7.99	6.19	4.30	4.29	53.33
Dumbartonshire . . 2	Cardross (Kilmahew) . . . . .	5.30	5.22	2.10	4.27	2.25	1.13	3.68	7.40	7.27	6.20	3.80	5.03	53.65
Stirlingshire . . . 1	Falkirk (Westbank Garden) . .	3.71	4.36	1.54	3.20	1.43	1.52	3.46	5.38	4.02	4.31	3.12	3.05	39.10
Buteshire . . . . . 1	Rothsay (Ardencraig) . . . . .	6.86	5.95	2.90	3.91	2.94	2.62	5.08	8.42	8.22	7.59	5.41	6.46	66.36
" . . . . . 3	Arran (Dougarie Lodge) . . . . .	4.72	7.06	2.32	3.81	2.83	2.48	3.90	6.71	7.19	6.27	4.35	6.75	58.39
Argyllshire . . . . 2	Loch Sunart (Glenborrodale) . .	12.07	3.91	3.06	3.36	4.03	6.85	9.09	6.78	9.17	10.46	9.05	7.22	85.05
" . . . . . 3	Morvern (Kingairloch) . . . . .	15.30	6.63	4.87	5.18	4.34	6.45	8.72	12.42	13.86	18.14	10.82	14.11	120.84
" . . . . . 5	Glen Etive . . . . .	11.22	5.07	2.11	3.43	5.00	3.51	7.42	8.98	15.79	14.41	8.04	7.41	92.39
" . . . . . 6	Loch Awe (Ford) . . . . .	10.50	6.50	3.15	4.12	4.25	4.63	9.55	7.82	11.84	12.77	8.62	8.65	92.40
" . . . . . 6	Dalmally (Manse of Glenorchy)	15.84	9.34	2.85	4.94	3.81	3.84	10.59	7.83	12.91	14.26	8.96	9.29	104.46
" . . . . . 7	Oban . . . . .	7.72	5.19	2.24	3.47	2.91	3.37	4.60	5.20	8.27	10.20	6.08	6.41	65.66
" . . . . . 9	Musdale (Killeen Manse) . . . .	4.08	7.28	2.32	2.95	2.06	1.88	3.43	5.37	6.09	5.90	4.56	5.35	51.27
" . . . . . 10	Skipness Castle . . . . .	5.73	6.64	2.11	3.40	2.74	2.53	4.15	6.36	7.42	7.32	5.63	6.67	60.70
" . . . . . 11	Ardishaig (Canal Office) . . . .	8.12	5.64	2.75	3.63	3.65	5.04	7.01	7.21	10.55	10.50	8.43	9.07	81.60
" . . . . . 11	Ardkinglas . . . . .	11.57	11.60	4.59	6.87	3.72	3.37	7.52	7.66	10.70	13.56	6.45	7.13	94.74
" . . . . . 12	Loch Eck (Benmore) . . . . .	13.42	9.89	5.47	6.22	3.68	4.05	9.23	10.28	14.77	14.92	10.62	10.50	113.05
" . . . . . 14	Islay (Ellabus) . . . . .	6.38	7.19	3.13	3.29	3.41	3.27	5.62	6.69	9.54	11.25	7.49	8.56	75.82
" . . . . . 14	Jura (Ardfin) . . . . .	6.87	5.63	3.59	3.37	2.57	3.40	5.92	6.45	8.81	8.83	6.56	9.27	71.27
" . . . . . 14	Mull (Iona Manse) . . . . .	5.97	4.59	2.06	2.53	2.16	3.36	4.90	6.40	7.31	9.04	5.53	7.28	61.13
" . . . . . 14	Mull (Glencannel) . . . . .	17.06	9.52	7.44	6.78	6.35	6.52	10.90	10.68	20.26	24.96	11.46	16.66	148.59
" . . . . . 14	Tiree (Cornaimore) . . . . .	5.00	4.69	2.59	2.67	1.65	1.92	2.55	5.42	6.13	6.00	4.08	5.72	48.42
Fifeshire . . . . . 2	Kirkcaldy (Munro Street) . . . .	1.56	3.21	1.10	2.34	1.50	1.05	2.14	4.85	2.74	2.29	2.59	2.95	28.32
" . . . . . 3	Cupar (Fife & Kinross Asylum)	1.74	4.53	1.14	2.83	2.12	.91	1.46	4.72	2.46	2.22	2.00	2.39	28.52
Perthshire . . . . . 2	Aberfoyle (The Inn) . . . . .	7.25	6.20	3.25	5.55	2.10	1.65	4.20	8.40	7.60	8.15	4.25	3.40	62.00

**TABLE XVII (con.). SCOTLAND—(con.).**

County and River Station.	Station.	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
<b>Perthshire</b> ..... <b>3</b>	Glengyle .....	11.80	12.20	5.60	7.10	3.80	2.75	8.50	11.80	12.95	16.10	7.20	7.00	106.80
" ..... <b>4</b>	Glendevon (Tormaukin) .....	5.66	5.44	3.15	3.78	2.90	2.52	2.93	8.43	5.72	5.80	3.26	4.47	54.06
" ..... <b>7</b>	Lochearnhead (Edenchip) .....	8.20	11.39	3.60	5.46	2.54	1.39	4.66	7.80	8.85	10.74	5.57	4.88	75.08
" ..... <b>7</b>	Crieff (Strathearn Hydro.) .....	3.81	5.25	2.31	3.59	.92	.81	2.90	6.74	4.05	4.68	2.24	2.94	40.24
" ..... <b>11</b>	Aberfeldy (Dall Avon) .....	3.79	10.00	1.90	3.31	1.73	.62	2.46	5.23	3.28	5.38	2.95	2.49	43.14
" ..... <b>14</b>	Loch Rannoch (Dall) .....	6.79	8.23	1.56	2.82	1.97	1.17	2.69	5.32	3.98	7.05	4.34	2.52	48.44
" ..... <b>14</b>	Glen Bruar (Bruar Lodge) .....	6.15	8.78	2.17	3.34	5.75	1.53	2.99	6.30	5.55	7.25	3.39	3.00	56.20
" ..... <b>15</b>	Coupar Angus (Public School)	2.03	6.43	1.49	2.82	1.22	.60	1.89	4.69	2.78	2.89	2.16	2.79	31.79
" ..... <b>15</b>	Kirkmichael (Ballintuim Ho.)	3.61	10.46	2.15	3.39	1.79	.54	2.82	6.35	4.79	5.59	3.11	3.83	48.43
<b>Forfarshire</b> ..... <b>3</b>	Arbroath (W. Cemetery) .....	1.06	4.09	1.35	1.85	1.38	.62	1.28	5.54	2.79	2.07	2.30	2.64	26.97
" ..... <b>3</b>	Glen Prosen (Lednathie) .....	4.36	16.25	3.14	4.11	2.58	.79	2.24	7.68	4.93	5.69	3.22	4.56	59.55
<b>Kincardineshire</b> . <b>1</b>	Marykirk (Balmakewan) ....	2.08	7.68	1.76	2.76	3.16	.46	1.30	5.07	2.73	2.78	2.67	3.47	35.92
" ..... <b>3</b>	Crathes (Schoolhouse) .....	1.68	9.46	1.25	2.18	4.76	.83	2.08	5.10	2.72	3.27	3.26	2.83	39.42
<b>Aberdeenshire</b> .. <b>1</b>	Glen Tanner (Aitnach) .....	4.74	10.00	2.28	2.68	5.58	1.09	1.65	6.27	3.33	4.60	4.00	5.00	51.22
" ..... <b>1</b>	Braemar (Derry Lodge) .....	6.84	8.67	1.18	2.35	4.74	1.46	4.79	5.46	2.91	4.44	4.11	3.12	50.07
" ..... <b>1</b>	Aberdeen (Cranford House) ..	2.89	6.35	1.74	2.26	5.18	1.05	2.31	5.01	3.85	3.60	3.32	4.93	42.49
" ..... <b>2</b>	Strathdon (Estate Office) ....	3.61	8.25	1.56	2.46	7.01	1.23	1.83	5.85	2.08	3.80	2.82	3.34	43.84
" ..... <b>3</b>	Haddo House .....	2.61	7.53	.96	2.22	6.29	1.12	1.94	4.42	2.79	3.57	3.99	4.04	41.48
" ..... <b>4</b>	Peterhead (Forehill Works) ...	2.71	4.15	1.64	2.56	5.40	1.64	.93	5.00	3.06	3.94	4.92	4.65	40.60
" ..... <b>5</b>	Huntly (Cruchie) .....	2.64	6.46	.66	2.50	7.09	1.74	2.67	5.47	2.56	3.84	4.54	3.52	43.82
<b>Banffshire</b> ..... <b>2</b>	Turriff (Forglen Gardens) ....	3.04	5.50	.65	2.19	7.72	1.61	2.67	4.68	2.78	3.51	5.44	3.88	43.67
<b>Morayshire</b> .... <b>2</b>	Aberlour (Wester Elchies) ....	3.19	3.76	1.22	2.17	8.02	2.13	2.54	6.26	2.57	3.59	4.92	2.93	43.30
" ..... <b>2</b>	Gordon Castle .....	2.85	4.07	.59	1.73	4.69	1.53	1.49	5.14	3.13	3.38	5.23	3.25	37.08
" ..... <b>3</b>	Grantown-on-Spey .....	3.55	2.29	.98	2.19	7.15	1.65	3.09	5.62	2.15	3.45	2.87	3.57	38.56
<b>Nairnshire</b> ..... <b>2</b>	Nairn (Achareidh) .....	2.50	1.52	.44	2.09	3.00	.93	2.19	5.39	2.54	3.28	2.60	1.96	28.44
<b>Inverness-shire</b> . <b>3</b>	Cluny Castle .....	7.05	3.92	.90	2.38	3.91	1.90	3.19	5.84	3.77	5.61	4.47	3.32	46.26
" ..... <b>3</b>	Alvie Gardens .....	4.62	2.30	.67	1.80	7.10	1.37	3.24	4.34	2.80	3.98	3.03	3.06	38.31
" ..... <b>6</b>	Loch Ness (Foyers) .....	8.07	2.20	.67	2.37	4.34	1.43	2.04	5.14	3.21	5.01	3.76	2.87	41.11
" ..... <b>7</b>	Loch Quoich (Glenquoich) ...	24.21	7.44	3.55	3.72	6.83	9.33	9.04	11.20	14.13	18.82	10.16	11.07	129.50
" ..... <b>7</b>	Invergarry Gardens .....	13.66	5.66	2.51	3.24	3.50	3.62	3.73	7.72	7.67	10.26	6.54	4.58	72.69
" ..... <b>13</b>	Arisaig House .....	9.61	2.98	2.41	3.18	4.65	5.80	6.69	7.50	9.67	11.00	9.01	8.57	81.07
" ..... <b>17</b>	Glenleven (Corrour Station) ..	14.35	8.07	3.42	3.77	3.97	2.72	6.66	7.85	9.73	17.22	6.74	7.33	91.83

TABLE XVII (con.). SCOTLAND—(con.).

County and River Division.	Station.	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
Inverness-shire .17	Fort William.....	12.64	6.33	2.67	3.85	4.19	3.96	8.63	8.93	10.90	14.08	6.59	6.86	89.63
" ..18	Hyskier.....	4.50	3.11	1.41	3.08	2.54	2.14	2.92	4.23	5.67	6.12	4.29	5.33	45.34
" ..18	Skye (Kyleakin, Dunringell) .	10.55	4.38	2.13	4.14	4.98	4.34	5.37	7.44	8.35	12.41	6.91	9.03	80.03
" ..18	Skye (Portree) .....	9.15	4.48	2.70	3.97	5.48	3.38	5.67	7.08	8.95	13.15	9.13	8.15	81.29
" ..18	Skye (Dunvegan) .....	9.37	3.60	2.72	2.91	3.60	2.64	4.27	5.45	7.72	10.66	7.50	8.46	68.90
" ..19	Barra (Castle Bay).....	3.27	2.36	1.28	2.64	1.97	1.18	2.24	3.60	4.33	4.34	3.54	3.83	34.58
Ross & Cromarty 4	Achnasheen (Ledgowan) ....	15.04	4.08	1.27	4.09	7.36	6.69	5.48	6.98	6.22	10.39	7.47	8.13	83.20
" .. 4	Strathpeffer .....	6.23	2.08	.30	2.32	2.75	1.15	3.11	5.23	2.26	3.87	3.15	2.61	35.06
" .. 4	Alness (Ardross Castle) .....	5.92	3.95	1.08	3.99	4.46	.96	3.50	6.12	2.83	5.15	3.74	3.54	45.24
" .. 7	Braemore (Loch a' Bhraoin)...	18.62	5.46	1.52	3.51	8.68	5.52	5.56	8.74	7.27	11.64	8.94	9.51	94.97
" .. 7	Ullapool .....	8.46	3.22	.81	2.66	5.15	3.47	4.37	5.60	5.42	7.55	6.30	5.96	58.97
" .. 8	Loch Torridon (Bendamp) .....	14.16	5.17	3.16	3.93	7.80	7.32	6.71	7.61	8.94	13.13	9.26	11.43	98.62
" .. 8	Poolewe (Inverewe Gardens) ..	8.23	2.68	.97	2.96	4.82	3.19	4.63	6.02	5.41	9.14	6.83	5.98	60.86
" .. 9	Glen Shiel (Shiel House).....	11.40	5.92	3.23	3.89	6.32	5.57	6.28	11.40	11.23	9.68	6.56	8.39	89.87
" .. 10	Stornoway .....	6.57	4.12	1.27	2.98	3.21	2.64	3.80	5.32	4.95	7.45	7.29	5.57	55.17
Sutherlandshire . 1	Laig .....	7.33	4.87	.60	3.23	3.75	1.36	3.08	5.48	3.55	5.43	4.68	3.63	46.99
" .. 2	Dunrobin Castle .....	3.56	1.69	.66	2.82	3.31	.97	3.44	4.61	4.01	4.46	2.48	3.29	35.30
" .. 3	Helmsdale Station .....	3.50	2.98	.64	2.67	3.76	.86	2.08	5.48	2.91	4.73	3.05	2.61	35.27
" .. 4	Tongue Manse .....	4.44	2.59	.99	4.22	5.56	2.84	3.52	6.87	3.35	6.45	4.67	4.92	50.42
" .. 4	Melvich Schoolhouse .....	4.38	3.24	.61	2.20	3.95	3.13	4.26	5.68	3.96	5.57	5.47	4.83	47.28
" .. 5	Loch More (Achfary) .....	14.68	4.58	1.09	3.65	11.11	11.48	8.20	8.09	9.30	12.36	11.59	12.09	108.22
Caithness-shire.. 2	Wick .....	3.97	2.44	.72	2.74	3.67	2.26	2.75	3.60	3.34	4.42	4.37	4.35	38.63
" .. 3	Thurso (Buckies) .....	3.81	3.49	.67	2.70	3.73	2.57	2.71	4.84	4.29	5.77	5.27	4.79	44.64
Orkney .....	Pomona (Deerness) .....	5.11	3.65	.52	3.19	3.97	2.11	3.11	4.61	5.41	6.81	6.16	4.35	49.08
Shetland .....	Lerwick Observatory .....	5.48	4.58	1.02	2.22	3.89	2.06	1.87	4.09	4.64	4.51	6.64	4.38	45.30
IRELAND.														
Co. Cork .....	Bantry House .....	2.74	12.76	5.05	5.80	.80	.62	2.58	6.87	5.78	7.38	4.53	4.82	59.73
" .. 6	Castletownshend (Seafeld) ..	3.19	10.72	3.85	6.66	.86	.27	2.60	7.89	4.23	5.92	5.05	3.97	55.21
" .. 6	Clonakilty (Shannon Vale Ho.)	1.97	8.47	2.51	6.01	.99	.40	2.36	6.09	4.05	4.88	3.59	2.90	44.22

**TABLE XVII (con.). IRELAND—(con.).**

County and River Division.	Station.	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
Co. Cork .....	Dunmanway (The Rectory)...	3.65	12.28	4.31	7.68	1.31	.65	2.83	7.29	5.51	7.55	4.40	4.42	61.88
" .....	Ballinageary (Inchibeg) .....	6.51	16.10	5.38	7.85	3.08	1.53	3.69	10.12	10.29	9.57	6.44	8.52	89.08
" .....	Cork (University College) .....	1.92	8.53	3.96	4.28	.96	.14	2.37	5.38	2.96	4.81	3.46	2.27	41.04
" .....	Midleton (Ballinacurra) .....	1.53	6.88	3.61	4.37	.81	.09	2.45	5.27	2.57	3.95	3.59	1.96	37.08
" .....	Kanturk (Castlecor) .....	2.60	6.49	3.31	4.08	1.97	.42	1.98	5.35	3.14	4.76	3.54	2.96	40.60
" .....	Mitchelstown Castle .....	3.28	7.30	3.58	4.20	1.52	.31	3.32	4.58	3.38	5.41	4.59	3.96	45.43
" .....	Cahiriveen Water Works .....	4.31	12.62	6.21	4.51	2.23	1.60	5.26	9.29	7.31	8.12	6.41	7.50	75.37
Kerry .....	Killarney (District Asylum) ..	3.55	10.44	2.37	5.06	3.28	.75	2.51	5.74	6.76	6.60	5.73	4.62	57.41
" .....	Killorglin (Callinafercy) .....	3.70	10.02	2.94	5.08	2.54	.66	4.52	8.58	8.03	8.20	7.04	7.06	68.37
" .....	Darrynane Abbey .....	2.71	8.59	4.13	3.48	1.73	.70	3.54	5.88	4.10	4.25	4.88	3.11	47.10
" .....	Kenmare (Dromore Castle) .....	6.01	15.73	5.30	6.54	3.00	.73	4.62	8.09	6.95	9.24	7.12	7.57	80.90
Waterford ..	Cappoquin (Mt. Melleray Abbey)	3.65	5.55	4.83	5.35	1.42	.93	3.08	7.25	3.48	5.57	5.95	3.77	50.83
" ..	Waterford (Brook Lodge) .....	1.73	7.12	3.19	4.00	1.31	.42	2.11	5.17	3.09	3.92	2.45	2.71	37.22
" ..	Carrick-on-Suir (Seskin) .....	2.00	8.62	3.90	5.03	1.12	.57	3.18	5.31	3.95	5.03	3.45	3.24	45.40
" ..	Nenagh (Traverston) .....	3.45	6.21	3.24	2.85	1.56	1.41	3.56	5.75	4.51	4.86	4.69	3.72	45.81
Tipperary ..	Nenagh (Castle Lough) .....	3.62	5.86	2.87	3.30	1.47	1.11	3.58	6.38	3.39	4.63	3.84	4.15	44.20
" ..	Cashel (Ballinamona) .....	2.81	6.10	2.47	3.24	1.19	.60	2.57	5.35	3.60	4.33	4.17	3.43	39.86
" ..	Roscrea (Timoney Park) .....	2.35	5.96	2.06	3.58	2.07	.97	2.75	5.25	4.38	3.01	2.92	3.69	38.99
" ..	Knocklong (Kilfrush) .....	3.40	6.47	2.32	3.08	2.12	.94	3.19	5.09	3.26	4.44	3.81	3.71	41.83
Limerick ...	Abbeyfeale (Springmount Sch.)	3.46	6.65	2.78	4.38	2.49	1.44	2.95	6.31	3.96	5.16	4.30	5.37	49.25
" ..	Foynes (National School) .....	3.60	6.14	2.84	4.07	1.81	1.29	3.64	4.97	3.59	4.44	4.07	4.41	44.87
" ..	Limerick (O'Connell Street) ..	3.74	5.33	2.68	3.17	2.00	1.46	3.70	5.02	3.52	5.48	4.40	4.78	45.28
" ..	Inagh (Mount Callan) .....	7.17	10.65	4.49	6.02	2.80	2.50	7.29	10.65	7.76	7.91	7.42	8.28	82.94
Clare .....	Kilkee (Liscrona) .....	3.51	5.79	2.01	2.45	2.01	1.47	3.30	5.50	3.51	4.97	4.33	4.67	43.52
" ..	Dromoland Castle .....	3.60	6.00	3.21	3.84	1.47	1.14	3.77	6.15	3.72	4.90	4.41	4.07	46.28
" ..	Foulkesmill (Longraigue) .....	1.53	7.10	2.98	4.11	1.24	.57	3.29	5.61	3.30	4.54	2.81	2.74	39.82
Wexford ...	Johnstown Castle .....	1.59	6.57	3.27	3.74	1.44	.69	3.69	5.96	2.17	4.66	2.99	3.15	39.92
" ..	Enniscorthy (Woodbrook) .....	2.27	9.16	3.12	5.64	2.00	.80	2.97	6.85	3.67	5.61	3.57	3.94	49.60
" ..	Gorey (Courtown House) .....	1.36	6.33	2.86	3.50	1.47	.96	2.37	4.54	2.34	4.37	2.87	2.90	35.87
" ..	Kilkenny (Lavistown House) ..	1.49	5.64	1.86	3.56	1.25	.69	2.01	4.78	2.09	3.42	1.82	2.28	30.89
Kilkenny ...	Rathdrum (Avondale) .....	2.19	9.96	3.72	4.70	1.43	1.19	2.39	6.32	3.43	4.93	3.11	3.01	46.38
Wicklow ...	Greystones Rathdown) .....	1.46	8.14	2.25	3.78	1.58	.81	1.81	4.75	1.82	2.84	2.54	1.66	33.44

**TABLE XVII (con.). IRELAND—(con.).**

County and River Division.	Station.	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
Co. Carlow . . . . .	Carlow (Browne's Hill) . . . . .	1.63	5.30	2.05	2.97	1.58	1.33	2.39	5.02	2.69	3.65	1.79	2.21	32.61
" . . . . .	Hacketstown Rectory . . . . .	2.36	7.06	2.55	3.01	1.82	1.77	3.39	5.49	3.39	4.44	3.01	2.98	41.27
Queen's County. 2	Abbeville (Blandsfert) . . . . .	2.60	5.96	2.17	3.16	1.28	1.06	2.42	5.39	3.53	4.14	1.91	3.31	36.93
" . . . . .	Mountmellick . . . . .	3.02	5.63	2.62	3.17	1.55	1.18	2.24	5.62	3.49	4.87	2.81	4.13	40.33
King's County. 1	Birr Castle . . . . .	2.93	4.78	2.35	2.90	1.33	.93	2.83	5.38	3.35	4.50	2.95	3.19	37.42
Co. Kildare. . . . .	Straffan House . . . . .	1.46	4.49	1.01	3.26	1.67	2.03	3.65	5.09	3.22	3.30	1.82	2.69	33.69
" Dublin . . . . .	Howth Castle . . . . .	1.47	5.80	1.31	2.80	1.44	.88	2.57	4.79	1.89	2.65	2.30	1.96	29.86
" . . . . .	Balbriggan (Ardgillan) . . . . .	1.90	5.57	1.33	3.56	1.65	1.05	2.62	5.46	2.68	2.43	2.23	2.76	33.24
" . . . . .	Dunboyne (Stirling, Clonee) . . . . .	2.57	4.98	1.73	4.33	2.40	1.84	4.28	6.11	2.97	3.09	2.40	2.68	39.38
" . . . . .	Summerhill House . . . . .	2.45	4.58	2.04	3.82	1.88	1.49	4.51	5.04	2.93	3.17	2.58	2.69	37.18
" . . . . .	Kells (Headfort) . . . . .	2.95	4.83	1.88	3.88	1.43	1.15	2.89	5.86	3.43	3.27	3.14	3.00	37.71
" Westmeath. 1	Moate (Coolatore) . . . . .	2.92	3.92	1.40	2.82	1.26	1.47	2.19	4.57	3.34	4.15	2.81	2.97	33.82
" . . . . .	Mullingar (Belvedere House) . . . . .	3.42	5.68	1.95	3.65	1.57	1.67	3.11	5.74	3.53	4.24	2.54	3.29	40.39
" . . . . .	Castlepollard (Pakenham Hall) . . . . .	3.63	5.04	2.02	3.07	2.12	1.50	2.69	6.38	3.77	4.28	3.55	2.95	41.00
" Louth. . . . .	Dundalk (Aughneskea Reservoir) . . . . .	3.61	8.54	2.11	4.85	1.08	1.50	3.64	8.00	4.54	3.62	3.18	3.43	48.10
" . . . . .	Greenore . . . . .	2.98	5.55	1.80	3.84	1.32	.90	2.75	5.35	3.27	3.11	3.42	3.69	37.98
" . . . . .	Ballymahon (New Castle) . . . . .	3.63	5.67	1.93	3.22	1.61	1.90	2.44	5.33	3.64	5.11	3.18	3.11	40.77
" . . . . .	Castle Forbes Gardens . . . . .	3.52	5.71	1.87	2.38	1.63	1.67	1.77	5.83	4.03	4.70	3.32	2.89	39.32
" Galway . . . . .	Galway (Waterdale) . . . . .	3.68	5.85	2.41	2.54	1.39	1.45	4.78	7.05	4.13	5.04	3.31	3.76	45.39
" . . . . .	Ballynahinch Castle . . . . .	7.34	9.82	4.65	5.57	3.61	2.83	5.67	9.76	8.75	8.97	7.83	8.85	83.65
" . . . . .	Tuam (Gardenfield) . . . . .	3.55	5.33	3.52	2.71	2.39	2.12	1.96	4.51	6.65	3.92	5.20	3.26	45.12
" . . . . .	Killimor (Ramore) . . . . .	2.68	5.92	2.78	3.12	1.19	1.10	2.73	5.39	2.99	4.59	2.97	3.21	38.67
" . . . . .	Ahascragh (Clonbrook) . . . . .	4.07	6.40	2.92	4.12	1.63	1.42	2.25	4.20	4.36	4.57	3.65	2.58	42.17
" . . . . .	Strokestown (Castlenode) . . . . .	3.13	6.27	2.29	2.64	1.64	1.41	1.16	6.65	3.98	4.19	3.00	3.02	39.38
" . . . . .	Swinford Rectory . . . . .	4.67	7.01	2.08	2.40	3.16	1.83	3.30	6.54	5.22	5.79	4.73	4.27	51.00
" . . . . .	Crossmolina (Enniscoe) . . . . .	6.50	8.65	4.23	4.47	3.38	2.04	4.50	8.07	8.15	7.57	6.04	4.99	68.59
" . . . . .	Westport House . . . . .	6.80	9.60	3.15	2.46	2.55	.64	2.21	6.36	6.90	6.47	5.30	4.42	56.86
" . . . . .	Mallarany . . . . .	8.59	8.07	3.00	4.09	2.98	3.38	5.81	10.07	9.71	10.85	8.04	7.94	82.53
" . . . . .	Aasleagh House . . . . .	11.98	15.29	6.38	7.79	5.11	3.50	5.66	11.32	12.60	11.93	9.13	12.06	112.75
" . . . . .	Cong (The Glebe) . . . . .	5.27	7.75	3.03	3.39	1.58	1.81	2.57	5.53	4.45	5.75	4.78	4.97	50.88
" . . . . .	Ballinrobe (Creagh) . . . . .	4.07	7.78	3.34	3.75	1.18	1.84	2.66	6.95	5.73	6.45	3.50	3.24	50.49
" . . . . .	Collooney (Markree Obsy.) . . . . .	5.15	5.03	2.85	3.05	2.76	2.30	2.60	7.40	6.18	5.79	5.08	4.79	52.98

**TABLE XVII (con.). IRELAND—(con.).**

County and River Division.	Station.	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
Co. Sligo.....	Sligo (Ard-na-veagh) .....	4.84	5.27	2.84	2.54	2.95	1.98	2.90	8.34	6.09	5.36	5.65	5.45	54.21
" Leitrim .....	Drumshanbo (Lough Allen Sluices) .....	4.13	5.26	2.26	2.34	1.79	1.58	1.67	6.62	5.34	4.65	3.62	4.10	43.36
" Cavan .....	Crossdoney (Kevit Castle) .....	3.27	3.16	1.73	2.93	1.26	1.11	2.29	6.29	4.75	4.60	3.49	2.76	37.64
" " .....	Belturbet (Cloverhill) .....	2.34	3.78	1.96	3.30	1.63	1.05	1.97	5.15	2.98	4.22	3.08	2.74	34.20
" Fermanagh ..	Enniskillen (Portora) .....	4.04	5.25	2.17	3.13	1.86	.90	1.98	6.57	4.96	4.33	4.66	4.28	44.13
" " .....	Belleek (Heronshaw) .....	4.53	4.22	1.94	2.54	2.54	1.89	3.34	8.48	6.18	5.97	5.70	4.95	52.28
" Monaghan ..	Monaghan (Workhouse) .....	2.88	4.57	1.73	2.81	1.62	1.08	2.39	5.41	3.86	3.98	3.55	3.62	37.50
" Armagh ....	Lurgan (Belle Vue) .....	2.35	4.09	1.30	2.67	1.40	1.23	2.24	4.48	3.39	2.96	2.81	2.84	31.76
" " .....	Armagh Observatory .....	2.57	5.42	1.48	3.16	1.43	1.08	2.22	4.89	3.47	3.46	3.75	2.93	35.86
" Down .....	Newry (Bridge Street House) .....	2.99	8.23	2.55	4.02	1.45	1.26	2.01	7.03	4.21	3.98	3.65	3.60	44.98
" " .....	Seaford .....	3.49	7.95	3.14	4.63	1.60	1.04	2.56	7.00	4.89	4.28	3.80	4.84	49.22
" " .....	Donaghadee .....	2.19	5.34	1.32	3.03	1.18	.83	3.19	4.82	3.67	3.06	2.69	4.37	35.69
" Antrim .....	Belfast (Queen's University) ..	4.13	6.88	2.28	3.68	1.35	.72	2.89	6.60	3.78	4.27	4.29	4.55	45.42
" " .....	Larne (Sallagh Springs) .....	5.24	8.09	2.53	3.77	2.34	1.48	3.46	7.78	5.05	5.19	4.20	5.84	54.97
" " .....	Glenarm Castle .....	4.73	8.90	2.09	3.69	2.21	1.32	2.33	3.73	5.57	5.47	3.63	5.53	49.20
" " .....	Ballycastle (Shesburn) .....	4.53	6.79	1.19	2.91	2.81	1.69	4.41	5.92	5.40	3.94	5.41	6.55	51.55
" " .....	Ballymena (Harryville) .....	4.45	4.73	2.31	3.37	2.67	1.90	3.61	6.21	5.07	5.31	3.79	6.04	49.46
" Londonderry.	Londonderry (Dunruadh) .....	4.81	3.61	1.88	2.80	2.55	1.96	3.46	6.26	5.68	5.12	5.36	4.84	48.33
" " .....	Glendora Lodge .....	6.58	7.04	4.10	4.92	3.45	2.56	3.26	7.83	7.32	8.06	5.38	5.73	66.23
" " .....	Limavady (Drenagh) .....	3.45	4.80	1.31	2.64	1.97	1.35	2.70	5.09	4.66	4.21	4.09	4.58	40.85
" Tyrone ....	Tullyhogue (Rockdale House)	4.36	6.00	2.21	4.06	1.94	.94	3.04	6.64	4.59	4.44	4.38	4.62	47.22
" " .....	Omagh (Edenfel) .....	4.87	6.98	2.80	3.71	2.71	1.63	3.31	6.19	4.56	4.48	4.70	4.06	50.00
" " .....	Sion Mills (Sion House) .....	4.49	4.91	2.33	3.10	2.32	1.40	2.91	5.55	5.90	5.67	5.30	3.98	47.86
" Donegal ....	Malin Head .....	3.92	4.17	1.36	2.58	1.59	1.40	3.79	6.27	4.60	4.51	4.00	4.77	42.96
" " .....	Letterkenny (Mental Hospital)	5.22	5.16	2.52	3.47	3.05	1.19	3.02	5.70	6.10	6.59	6.06	4.99	53.07
" " .....	Milford (The Manse) .....	4.84	4.54	2.38	3.03	2.63	1.79	2.93	6.62	5.93	5.44	6.03	5.05	51.21
" " .....	Dunfanaghy (St. Helen's) .....	4.14	3.67	1.84	2.68	2.34	1.88	4.18	6.10	5.52	6.23	4.63	4.78	47.99
" " .....	Narin (Kiltoorish) .....	4.76	4.58	2.96	2.73	2.60	2.30	3.21	6.46	6.34	6.44	5.13	5.75	53.26
" " .....	Killybegs (Rockmount) .....	10.35	5.80	3.80	3.60	4.88	2.20	5.75	9.13	9.02	8.45	8.02	9.12	80.12

Table XVIII.—*Monthly Rainfall in 1923 ; the Average, 1881-1915, being taken as 100.*

County and River Division.	Station.	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
London .....	St. Pancras (Camden Square) ..	69	182	131	89	130	21	136	91	71	226	62	97	110
Kent .....	Tenterden (View Tower) .....	66	198	101	127	217	32	27	77	86	174	77	91	105
" .....	Margate (Cliftonville) .....	86	167	60	77	139	32	22	132	65	131	75	79	89
" .....	Edenbridge (Falconhurst) .....	64	224	97	161	180	24	132	77	94	204	66	99	117
Sussex .....	Compton (Compton House) .....	61	248	92	203	155	22	44	114	90	163	38	102	108
" .....	Brighton (Old Steyne) .....	72	221	119	227	208	26	154	154	139	178	73	111	137
Hampshire .....	Ventnor (Royal National Hospital)	53	220	91	223	169	26	40	98	108	181	62	116	116
" .....	Fordingbridge (Oaklands) .....	60	276	89	205	71	29	40	86	109	137	64	109	107
" .....	Sherborne St. John Rectory .....	69	193	108	175	102	17	37	100	121	167	77	77	104
Hertfordshire .....	Royston (Therfield Rectory) .....	74	195	101	90	75	37	114	149	107	145	63	99	104
" .....	High Wycombe .....	80	223	148	172	138	26	115	119	128	175	71	124	126
Buckinghamshire .....	Oxford (Magdalen College) .....	88	212	174	142	70	18	60	138	119	139	54	101	106
Oxfordshire .....	Wellingborough (Swanspool) .....	61	225	99	115	77	25	123	74	145	122	87	100	102
Northamptonshire .....	Wisbech (Bank House) .....	89	211	144	80	74	24	180	97	113	108	70	125	108
Cambridgeshire .....	Chelmsford (High Street) .....	81	189	94	159	113	43	80	82	109	196	107	93	111
Essex .....	Hawkesdon Rectory .....	95	187	73	86	76	32	66	105	158	158	92	113	103
Suffolk .....	Beccles (Geldeston) .....	78	247	80	37	73	38	143	119	64	100	115	125	102
Norfolk .....	Worstead (Dilham) .....	89	159	84	70	85	49	90	105	75	114	157	95	99
" .....	Swaffham .....	96	241	82	64	89	29	110	99	87	110	88	158	103
Wiltshire .....	Bishops Cannings .....	75	261	109	127	77	22	51	90	167	158	60	103	107
Dorsetshire .....	Evershot (Melbury House) .....	69	290	53	104	84	18	45	95	157	145	62	90	103
Devonshire .....	Ashburton (Druid House) .....	55	256	54	180	96	6	43	112	159	174	87	74	110
" .....	Cullompton .....	77	308	55	120	65	25	54	93	132	127	87	84	103
" .....	Barnstaple (N. Dev. Athenæum) ..	107	309	62	129	120	42	121	102	134	162	111	113	127
Cornwall .....	Penzance (Morrah Gardens) .....	73	226	69	149	143	18	44	72	96	121	99	81	100
" .....	St. Austell (Trevarna) .....	87	243	76	140	148	20	28	75	119	132	92	92	105
" .....	Altarnon Vicarage .....	92	245	51	131	133	30	51	74	145	141	105	103	111
Somersetshire .....	Litton (Sherborne Res.) .....	81	329	61	123	78	30	73	139	161	141	118	100	120
Gloucester .....	Cirencester (Dollarward House) ..	92	262	100	142	65	18	73	75	125	150	70	108	105
Shropshire .....	Church Stretton (Wolstaston) ..	71	321	74	138	89	19	109	95	135	170	84	102	116
Staffordshire .....	Market Drayton (Old Springs) ..	104	246	72	105	164	21	113	89	143	127	88	143	114
Worcestershire .....	Malvern Church Street) .....	59	330	97	157	97	17	137	73	103	176	58	100	113

Table XVIII.—*Monthly Rainfall in 1923; the Average, 1881–1915, being taken as 100—(con.)*

County and River Division.	Station.	Jan.	Feb.	March.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
Warwickshire . . . . .	Farnborough . . . . .	78	240	92	132	69	23	110	82	128	187	86	113	112
" . . . . .	Birmingham (Edgbaston) . . . . .	90	348	82	144	78	19	185	92	151	126	76	116	120
Leicestershire . . . . .	Belvoir Castle Gardens . . . . .	67	202	66	112	92	36	161	84	148	94	97	110	105
Lincolnshire . . . . .	Boston (Black Sluice, Skirbeck) . . . . .	89	216	110	63	105	27	96	99	130	89	121	141	106
" . . . . .	Lincoln (Skellingthorpe Hall) . . . . .	107	242	104	76	175	55	191	104	169	56	107	119	121
Derbyshire . . . . .	Mickleover (Clyde House) . . . . .	71	250	81	120	131	26	251	94	139	94	111	133	123
Cheshire . . . . .	Chelford (Astle Hall) . . . . .	125	230	78	143	160	32	138	128	187	124	105	159	132
S. Lancashire . . . . .	Bury (Gin Hall) No. 1 . . . . .	115	197	69	162	166	33	134	138	149	149	193	110	134
C. " . . . . .	Stonyhurst College . . . . .	165	163	39	134	155	50	158	151	184	146	177	104	137
C. " . . . . .	Southport (Hesketh Park) . . . . .	89	181	61	142	117	26	102	134	130	128	153	151	120
N. " . . . . .	Cartmel (Holker Hall) . . . . .	126	197	49	159	118	36	121	180	168	188	151	116	137
Yorkshire, W.R. . . . .	Rotherham (Moorgate Grange) . . . . .	33	254	74	115	128	25	243	93	119	50	129	98	112
" . . . . .	Bradford (Lister Park) . . . . .	74	260	69	115	162	43	118	139	152	88	163	103	121
" . . . . .	York (Museum Gardens) . . . . .	87	246	82	77	120	37	85	112	148	68	101	128	104
" . . . . .	Hull (Pearson Park) . . . . .	73	250	84	96	191	24	121	94	189	46	140	129	114
" . . . . .	Leyburn (Bolton Hall) . . . . .	97	242	54	171	112	37	114	162	143	129	186	82	128
" . . . . .	Felixkirk (Mount St John) . . . . .	85	230	76	90	116	39	98	114	138	87	124	111	107
" . . . . .	Scarborough . . . . .	71	166	56	61	150	28	99	108	103	39	136	116	94
" . . . . .	Middlesbrough (Albert Park) . . . . .	74	157	82	96	125	39	89	97	94	66	179	109	99
Durham . . . . .	Barnard Castle (County School) . . . . .	66	221	60	132	116	40	77	150	114	93	156	99	110
Northumberland . . . . .	Newcastle (Town Moor) . . . . .	61	218	90	124	136	48	105	143	87	69	178	97	110
" . . . . .	Hallington (Fawcett)(Nwc. WW)	63	185	64	118	73	42	71	146	82	75	151	75	95
" . . . . .	Ilkerton (Libburn Tower) . . . . .	84	228	66	102	122	44	59	145	77	60	157	144	106
Cumberland . . . . .	Carlisle (Spital Cemetery) . . . . .	82	190	36	136	91	25	72	191	119	175	143	80	115
" . . . . .	Borrowdale (Seathwaite) . . . . .	115	157	54	125	145	90	116	195	168	223	162	80	136
Westmorland . . . . .	Appleby (Castle Bank) . . . . .	95	145	67	165	118	65	88	191	142	176	128	105	124
Monmouth . . . . .	Abergavenny (Larchfield) . . . . .	50	345	50	146	77	12	79	93	120	165	71	57	107
Glamorgan . . . . .	Ystalyfera (Wern House) . . . . .	91	234	51	129	113	55	102	128	176	151	119	97	120
" . . . . .	Cardiff (Ely Pumping Station) . . . . .	75	293	65	145	103	35	73	114	130	142	87	81	111
Cardmarthen . . . . .	Cardmarthen (The Friary) . . . . .	81	239	60	108	108	41	80	111	128	134	112	93	109
Pembroke . . . . .	Haverfordwest (Grammar School)	63	327	89	128	78	46	134	147	114	147	112	104	125
Cardigan . . . . .	Yspytty Ystwyth (Harod) . . . . .	147	254	57	125	149	75	138	110	178	180	141	120	140



Table XVIII.—*Monthly Rainfall in 1923; the Average, 1881–1915, being taken as 100—(con.).*

County and River Division.	Station.	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
Radnor .....	New Radnor .....	73	313	65	100	116	24	82	78	106	164	73	51	104
Montgomery .....	Lake Vyrnwy (Bank Cynon Isaf).	79	266	62	141	181	50	115	144	143	185	105	73	126
Flint .....	Northop (Soughton Hall) .....	103	184	33	94	150	29	98	100	125	132	95	140	108
Merioneth .....	Dolgelly (Bryntirion) .....	168	297	46	126	196	76	186	125	199	197	125	119	153
Carnarvon .....	Llandudno .....	77	218	35	97	139	34	93	82	132	123	160	103	109
" .....	Llandwrog (Glynllivon Park) ..	81	229	39	110	95	50	108	119	202	136	123	81	115
Anglesey .....	Holyhead (Salt Island) .....	81	198	43	124	63	33	113	141	148	116	115	80	106
Isle of Man .....	Douglas (Borough Cemetery) ..	113	148	57	111	92	51	101	180	124	149	91	117	115
Wigtownshire .....	Stoneykirk (Ardwell House) .....	99	224	56	137	77	53	115	191	142	111	111	195	130
Kirkcudbrightshire .....	Dalry (Glendaroch) .....	94	167	62	124	62	45	111	186	202	145	125	95	120
" .....	Auchencairn (Torr House) .....	95	172	57	165	92	52	112	206	146	162	123	120	129
Dumfriesshire .....	Durrisdeer (Drumlanrig Gardens).	81	164	62	175	103	58	173	199	193	144	117	86	129
Roxburghshire .....	Hawick (Braxholme) .....	77	204	41	151	82	51	69	171	158	129	134	67	110
Berwickshire .....	Marchmont House .....	74	203	39	81	87	48	59	137	71	93	119	111	94
Haddingtonshire .....	North Berwick Reservoir .....	55	181	30	141	80	58	45	132	110	45	104	124	90
Midlothianshire .....	Moorfoot Hills (Gladhouse Res.) ..	88	179	65	161	138	67	118	144	102	103	134	86	114
Lanarkshire .....	Biggar .....	113	158	45	186	130	76	133	169	183	129	127	82	126
" .....	Airdrie (Hillend Reservoir) .....	121	140	50	158	94	55	169	180	180	159	110	81	127
Ayrshire .....	Kilmarnock (North Craig Res.) ..	137	109	56	126	63	69	152	161	195	175	110	102	125
" .....	Girvan (Pinmore) .....	109	169	64	82	116	79	138	187	179	154	136	122	131
Renfrewshire .....	Shaws W.W. (Loch Thom) .....	155	136	67	140	83	59	138	139	240	178	93	84	128
Argyllshire .....	Lochgilphead (Poltalloch) .....	158	137	81	120	108	133	153	143	212	205	128	112	143
" .....	Skipness Castle .....	121	165	55	111	95	95	124	138	177	164	105	119	124
" .....	Inveraray Castle Gardens .....	149	119	46	76	88	109	170	151	209	209	87	82	125
" .....	Islay (Eallabus) .....	136	172	82	115	129	125	165	153	228	236	139	144	155
Kinross-shire .....	Loch Leven Sluice .....	76	163	57	180	69	57	74	135	131	92	74	69	96
Perthshire .....	Loch Dhu .....	121	136	65	129	63	53	123	136	197	169	71	61	109
" .....	Crieff (Strathearn Hydro) .....	95	149	72	164	37	31	98	160	142	119	52	66	98
" .....	Glen Garry (Dalnaspidal Lodge) ..	110	196	68	91	109	88	79	148	105	177	60	56	107
Forfarshire .....	Dundee (Eastern Necropolis) .....	81	258	70	154	103	48	110	143	115	84	92	107	113
" .....	Montrose (Sunnyside Asylum) ..	83	269	75	127	108	45	80	188	121	91	120	122	119
Aberdeen .....	Braemar (Bank) .....	139	345	43	94	191	63	86	151	137	108	87	97	128

Table XVIII.—*Monthly Rainfall in 1923; the Average, 1881-1915, being taken as 100—(con.).*

County and River Division.	Station.	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
Aberdeenshire . . . . . 1	Logie Coldstone School . . . . .	144	286	41	119	214	48	68	172	100	99	129	113	126
" . . . . . 1	Aberdeen (Cranford House) . . . . .	121	274	67	110	209	58	78	174	165	111	103	142	134
" . . . . . 4	New Deer Schoolhouse . . . . .	122	324	47	132	305	88	80	164	102	102	130	129	138
Morayshire . . . . . 2	Gordon Castle . . . . .	141	212	25	99	221	75	47	162	125	107	182	121	125
" . . . . . 3	Grantown-on-Spey . . . . .	147	108	37	111	307	73	101	176	87	116	96	132	124
" . . . . . 2	Nairn (Delnies) . . . . .	124	78	32	129	133	49	76	205	115	143	113	93	109
Nairnshire . . . . . 6	Fort Augustus (St. Benedict's) . . . . .	152	84	25	86	155	103	101	151	117	185	105	57	109
Inverness-shire . . . . . 7	Loch Quoich (Glenquoich) . . . . .	176	72	37	57	125	190	141	136	164	188	84	76	117
" . . . . . 13	Arisaig House . . . . .	155	60	51	89	135	178	135	129	160	187	134	118	129
" . . . . . 17	Fort William . . . . .	131	84	39	86	105	111	179	145	172	197	81	68	114
Ross-shire . . . . . 4	Alness (Ardross Castle) . . . . .	156	120	33	165	172	42	116	207	97	134	93	86	117
" . . . . . 8	Loch Torridon (Bendamph) . . . . .	151	65	42	75	171	179	124	115	129	164	100	112	116
" . . . . . 10	Stornoway . . . . .	127	92	31	98	125	114	125	134	125	144	125	89	111
Sutherlandshire . . . . . 2	Dunrobin Castle . . . . .	129	67	25	132	146	51	120	170	166	154	75	102	112
" . . . . . 4	Tongue Manse . . . . .	113	74	29	161	234	139	115	215	106	154	102	99	123
" . . . . . 4	Melvich Schoolhouse . . . . .	133	108	21	95	193	161	152	191	141	152	137	112	131
" . . . . . 5	Loch More (Achfary) . . . . .	202	69	17	75	253	310	153	139	162	158	136	131	143
" . . . . . 2	Wick . . . . .	161	107	32	138	177	126	105	131	134	149	139	141	129
Caithness-shire . . . . . 6	Pomona (Deerness) . . . . .	148	121	19	154	199	115	121	161	187	180	157	104	138
Orkney . . . . . 6	Dunmanway (The Rectory) . . . . .	58	210	88	185	39	19	73	155	134	126	71	55	101
Co. Cork . . . . . 6	Glanmire (Lota Lodge) No. 1 . . . . .	50	232	131	168	55	5	104	164	118	138	91	51	109
" . . . . . 9	Mallow (Longueville) . . . . .	57	245	119	148	70	9	97	111	79	121	106	42	101
" . . . . . 3	Cahiriveen (Valencia Obsy.) . . . . .	49	208	117	115	54	30	96	159	136	125	92	81	108
" . . . . . 3	Killarney (District Asylum) . . . . .	60	200	50	153	107	26	76	130	189	123	102	63	105
" . . . . . 3	Waterford (Brook Lodge) . . . . .	47	218	116	157	56	16	65	135	112	100	65	58	94
" . . . . . 1	Nenagh (Castle Lough) . . . . .	91	188	93	131	60	45	114	162	121	137	96	90	112
" . . . . . 3	Cahir (Abbey) . . . . .	60	186	98	149	51	24	98	140	120	119	109	65	102
" . . . . . 3	Cashel (Ballinamona) . . . . .	74	191	90	130	50	26	89	151	147	120	119	79	107
" . . . . . 2	Foynes (Coolnanes) . . . . .	98	193	107	168	82	50	122	135	122	120	105	100	117
" . . . . . 4	Gorey (Courtown House) . . . . .	44	225	124	160	66	39	81	136	95	123	82	76	103
" . . . . . 2	Kilkenny (Lavistown House) . . . . .	56	250	93	170	60	29	72	147	94	111	63	73	100
" . . . . . 2	Shillelagh (Coolattin Gardens) . . . . .	56	226	83	92	53	60	82	169	116	114	76	73	101

Table XVIII.—*Monthly Rainfall in 1923; the Average, 1881–1915, being taken as 100—(con.).*

County and River Division.		Station.		Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
Queen's County	2	Abbey Leix (Blandsfort)		79	222	83	121	53	41	77	136	130	118	57	90	101
King's County	1	Birr Castle		104	209	98	135	60	40	46	141	146	155	95	97	115
Co. Kildare	2	Straffan House		57	207	44	165	76	89	129	135	144	116	58	88	107
„ Dublin	3	Balbriggan (Ardgillan) No. 1		83	284	66	180	79	52	97	160	131	90	77	96	115
„ Meath	4	Kells (Headfort)		94	179	68	155	53	43	91	141	129	98	92	79	102
„ Westmeath	1	Mullingar (Belvedere)		107	204	72	154	64	64	98	138	132	136	74	89	111
„ Louth	3	Greenore		119	240	78	176	57	36	96	152	141	110	112	113	119
„ Longford	2	Castle Forbes Gardens		106	201	63	100	63	65	57	143	140	144	92	73	105
„ Galway	3	Tuam (Gardenfield)		87	150	102	105	83	78	57	101	200	99	114	64	102
„ „	5	Ahascragh (Clonbrock)		105	207	88	162	59	51	65	100	141	125	91	55	101
„ Roscommon	4	Strokestown (Castlenode)		100	237	83	120	68	60	41	175	147	137	88	81	113
„ Mayo	2	Crossmolina (Enniscoe)		124	194	94	142	104	68	124	179	208	146	103	76	129
„ „	4	Westport House		146	243	81	91	89	24	71	157	194	144	108	77	122
„ Sligo	1	Collooney (Markree Observatory)		131	143	82	115	99	76	75	170	184	141	122	101	122
„ Cavan	2	Belturbet (Cloverhill)		78	145	71	144	65	43	63	138	120	145	99	74	99
„ Armagh	5	Armagh Observatory		102	244	63	150	60	43	77	135	141	127	132	94	113
„ Down	2	Seaford		111	261	108	177	61	38	80	187	178	120	100	117	129
„ Antrim	1	Belfast (Queen's University)		144	273	89	163	58	29	97	178	147	130	128	124	131
„ „	5	Ballymena (Harryville)		120	146	73	128	93	65	105	145	163	144	94	136	119
„ Londonderry	5	Londonderry (Creggan Reservoir)		143	112	58	111	122	103	104	137	175	138	139	126	124
„ „	5	Limavady (Drenagh)		107	167	45	116	86	52	87	133	159	122	110	121	110
„ Tyrone	3	Omagh (Edenfel)		138	234	89	141	105	58	97	145	149	122	124	96	125
„ Donegal	3	Dunfanaghy (St. Helen's)		102	103	50	99	90	66	121	139	160	142	98	92	107
„ „	5	Killybegs (Rockmount)		185	116	75	100	136	58	131	163	196	151	127	125	132
England		(general mean, * 58 stations)		82	229	82	127	118	31	101	113	126	132	107	107	...
Wales		„ „ 13		90	261	53	121	121	43	108	115	146	152	111	92	...
England and Wales		„ „ 71		83	235	77	126	119	34	102	113	130	136	108	105	...
Scotland		„ „ 43		123	156	48	123	137	89	115	161	150	144	111	103	...
Ireland		„ „ 37		94	202	85	140	73	46	89	147	144	126	98	86	...
British Isles†		„ „ 152		97	204	70	128	113	53	103	135	139	136	106	100	...

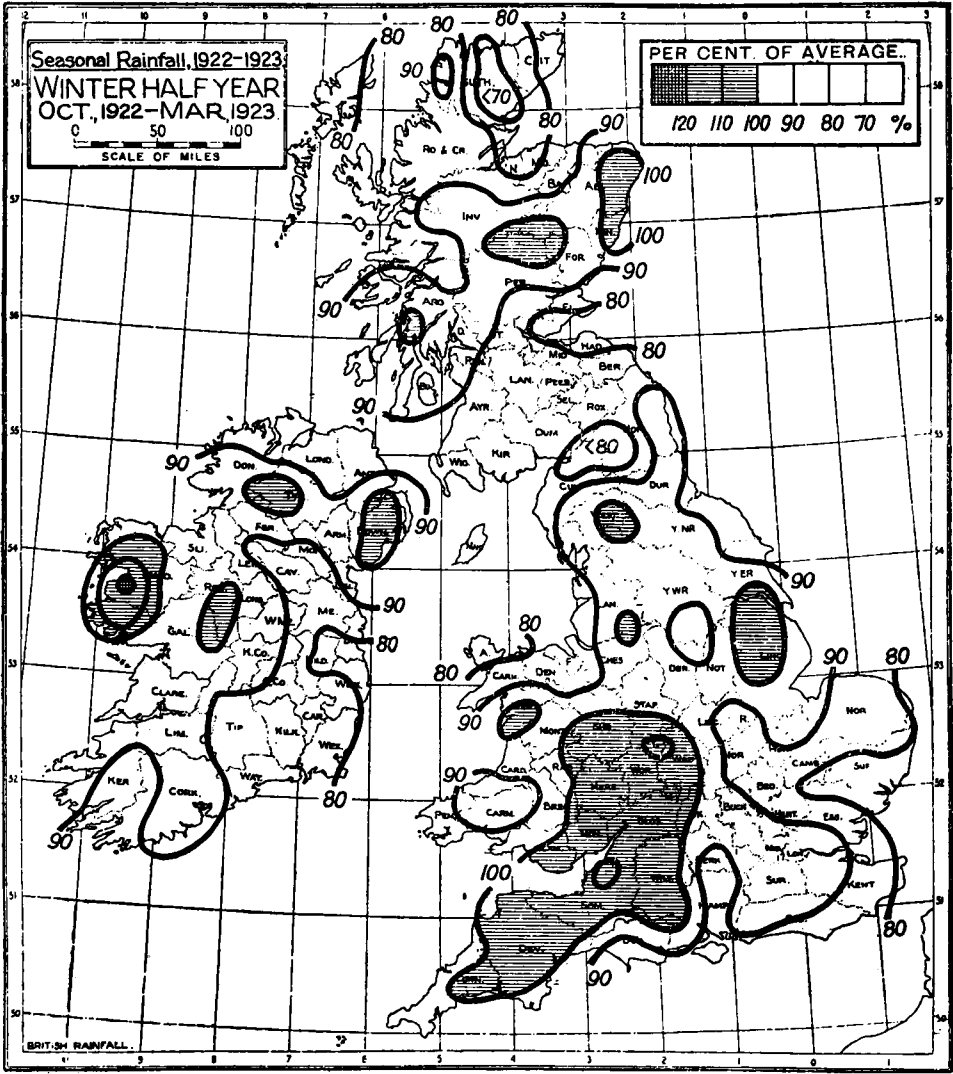
\* The "general" values given in the last six rows are obtained by taking the means of the percentage values for the stations.

† Including Isle of Man.

‡ See Table, XX.

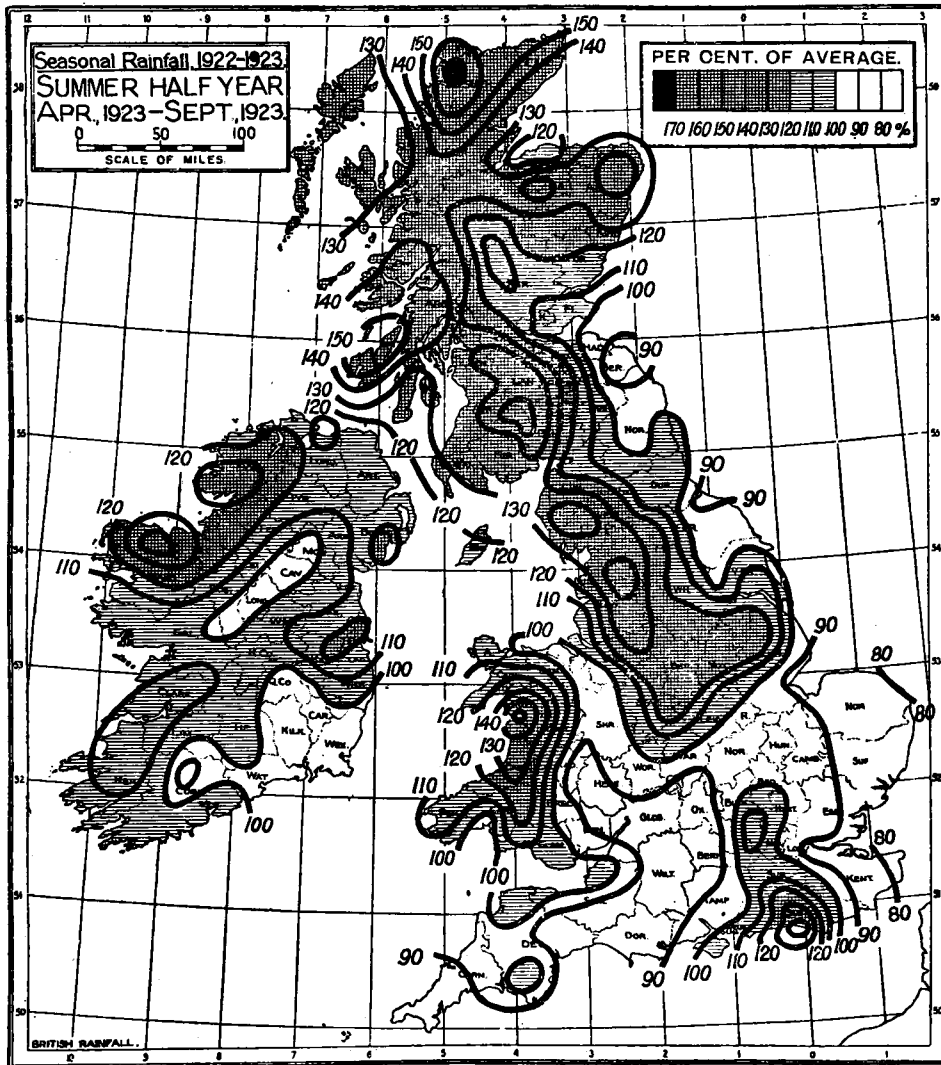
9. SEASONAL RAINFALL, 1922-1923.

The rainfall of the summer and of the winter months presents characteristics which are in some respects quite different. In the summer months the rains are more local and intense, while the winter



Rainfall, Winter Half Year, as per cent. of average.

rains are usually more widespread. There are advantages therefore in grouping the summer months and winter months separately. A division of this nature is also of economic importance. In the winter months there is little evaporation, the precipitation going to feed streams and for underground storage. In the summer months the bulk of the rain is re-evaporated and much of the naturally stored water is drawn upon for the upkeep of rivers and for the requirements of vegetable life.

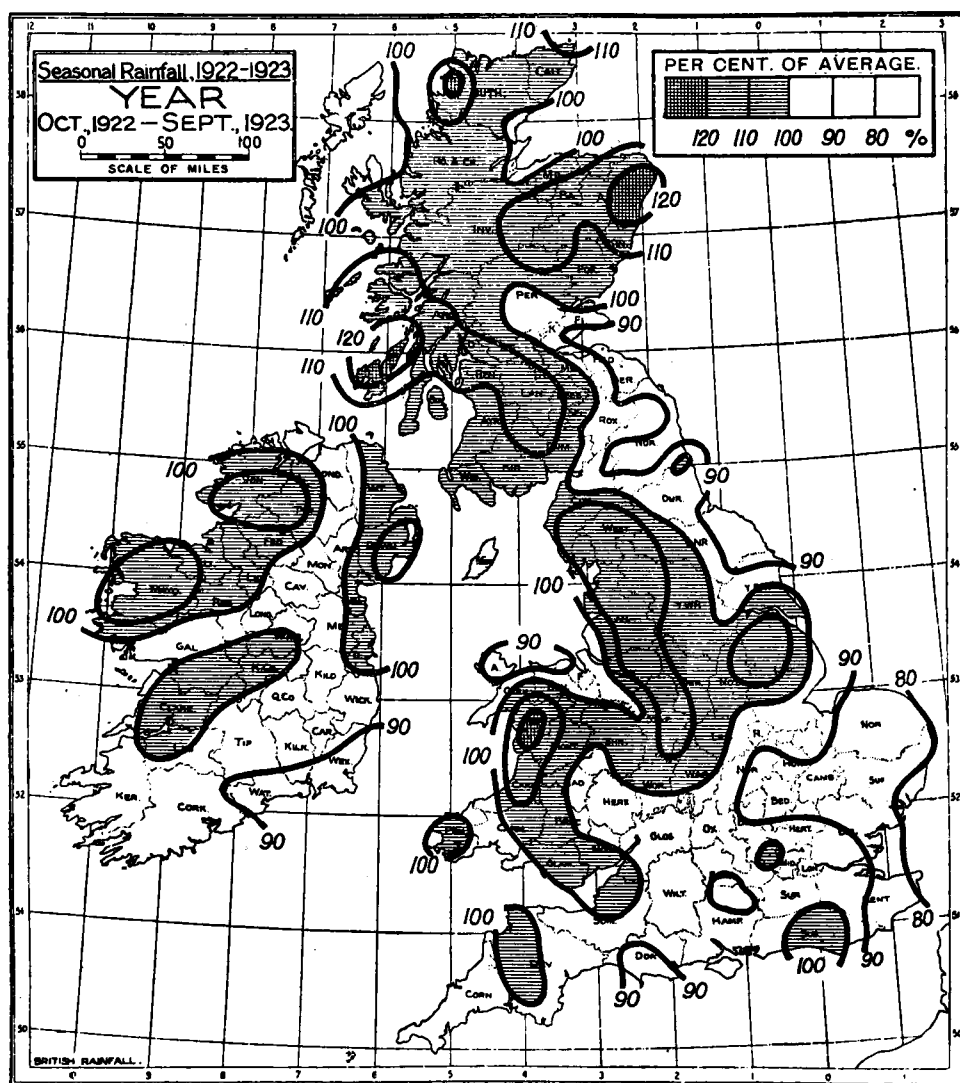


Rainfall, Summer Half Year, as per cent. of average.

The winter half-year to be considered here runs from October, 1922, to March, 1923. The summer half-year from April to September, 1923. The percentages of the normal fall for the winter and summer half-years, together with those for the whole period, October to

September, are set out in Table XIX,\* for the same set of stations as are used in the monthly percentage table. From these statistics the three maps on pp. 110–112 have been prepared.

The winter half-year included three very dry months, October and November, 1922, and March, 1923. On the other hand, February was exceptionally wet. The deficiency in the dry months was most



Rainfall, Seasonal Year, as per cent. of average.

marked in parts of Scotland, and the totals for the half year are conspicuously low there. At Dunrobin Castle, in Sutherlandshire, the amount for the six months was only 10·76 in., or 62 per cent. of

\* A summary showing the general rainfall for the British Isles and the several countries from 1906–07 to 1920–21 is given in *British Rainfall*, 1921, p. 140.

the average. There was no large area with a considerable excess, the highest percentage of the average, viz., 120, occurred at Westport House in Mayo.

The summer half-year was decidedly wet in most parts of the United Kingdom. In the south of England, however, the season ranks as a dry one except for the area visited by the great thunderstorm of July 9th. In all the western districts the totals for the summer were high, the general distribution indicating unusually pronounced orographic rainfall. The highest percentage of the average was 173 at Achfary, near Loch More in Sutherlandshire, the total being 51·83 in. as compared with the average of 29·89 in. for the summer half-year.

The general value for Scotland of 132 per cent. is the largest since comparable statistics are available, viz., since 1907. The next wettest summers are those of 1907, 1916 and 1918 with 108 per cent., so that the summer of 1923 stands out as 24 per cent. wetter than any other summer since 1907.

For some purposes the period of twelve months from October to September is of more importance than the calendar year. In fact proposals have been made that all rainfall statistics should be tabulated with reference to this period as being the significant one for most crops. For the twelve months under review the rainfall was generally low in the south of England, in the greater part of Ireland and in south-east Scotland. The orographical rain of the summer gave high totals for the western districts. The highest percentage of the average, 127, was at Bryntirion, near Dolgelly in Merionethshire, where the total was 74·82 in., the average being 58·79 in. The lowest percentage, 78, occurred at Margate, Cliftonville. It will be remembered that it was at this station that the lowest rainfall on record in the British Isles for a calendar year, viz., 9·29 in., occurred in 1921.

Table XIX.—Seasonal Rainfall, 1922-1923, in relation to the Average, 1881-1915.

Station. ‡	Winter 6 Months, Oct. 1922- Mar. 1923.			Summer 6 Months, Apr. 1923- Sep. 1923.			Station. ‡			Winter 6 Months, Oct. 1922- Mar. 1923.			Summer 6 Months, Apr. 1923- Sep. 1923.			Twelve Months, Oct. 1922- Sep. 1923.		
	Per cent. of Average.	Per cent. of Average.	Per cent. of Average.	Per cent. of Average.	Per cent. of Average.	Per cent. of Average.				Per cent. of Average.	Per cent. of Average.	Per cent. of Average.	Per cent. of Average.	Per cent. of Average.	Per cent. of Average.	Per cent. of Average.	Per cent. of Average.	Per cent. of Average.
St. Pancras (Camden Square) ..	97			90		94	Litton (Sherborne Res.) .....			111			103			108		
Tenterden (View Tower) .....	86			88		87	Cirencester (Dollarward House) ..			105			80			93		
Margate (Cliftonville) .....	80			76		78	Church Stretton (Wolstaston) ..			105			96			101		
Edenbridge (Falconhurst) .....	95			107		100	Market Drayton (Old Springs) ..			94			103			98		
Compton (Compton House) .....	93			99		96	Malvern (Church Street) .....			105			94			100		
Brighton (Old Steyne) .....	84			149		110	Farnborough .....			101			89			95		
Ventnor (Royal National Hosp.) ..	85			107		94	Birmingham (Edgbaston) .....			112			108			110		
Fordingbridge (Oaklands) .....	100			89		95	Belvoir Castle Gardens .....			90			106			98		
Sherborne St. John Rectory ....	85			89		87	Boston (Black Sluice, Skirbeck) ..			98			88			93		
Royston (Therfield Rectory) ...	81			98		89	Lincoln (Skellingthorpe Hall) ..			107			129			118		
High Wycombe .....	97			114		105	Mickleover (Clyde House) .....			94			126			110		
Oxford (Magdalen College) .....	96			88		92	Chelford (Astle Hall) .....			98			130			114		
Wellingborough (Swanspool) ....	89			91		90	Bury (Gin Hall) No. 1 .....			102			130			115		
Wisbech (Bank House) .....	95			98		96	Stonyhurst College .....			93			142			116		
Chelmsford (High Street) .....	90			93		91	Southport (Hesketh Park) .....			87			110			98		
Hawkedon Rectory .....	77			87		82	Cartmel (Holker Hall) .....			92			135			112		
Beccles (Geldeston) .....	84			84		84	Rotherham (Moorgate Grange) ..			84			123			103		
Worstead (Dilham) .....	81			81		81	Bradford (Lister Park) .....			92			121			105		
Swaffham .....	89			82		86	York (Museum Gardens) .....			94			95			95		
Bishops Cannings .....	103			87		96	Hull (Pearson Park) .....			103			116			109		
Evershot (Melbury House) .....	90			86		89	Leyburn (Bolton Hall) .....			98			125			109		
Ashburton (Druid House) .....	101			103		101	Felixkirk (Mount St. John) .....			99			99			99		
Cullompton .....	107			82		96	Scarborough .....			69			94			81		
Barnstaple (N. Dev. Athenæum) ..	110			109		109	Middlesbrough (Albert Park) ....			88			90			89		
Penzance (Morrab Gardens) .....	96			86		92	Barnard Castle (County School) ..			94			105			99		
St. Austell (Trevarna) .....	101			86		95	Newcastle (Town Moor) .....			94			108			101		
Altarnon Vicarage .....	99			94		97	Hallington (Fawcett) (Newc. W.W.)			80			91			85		

‡ For counties see Table XVIII, pp. 105-109.



Table XIX (con.)—Seasonal Rainfall, 1922–1923, in relation to the Average, 1881–1915—(con.).

Station. ‡	Winter 6 Months, Oct. 1922– Mar. 1923.				Summer 6 Months, Apr. 1923– Sep. 1923.				Station. ‡				Winter 6 Months, Oct. 1922– Mar. 1923.				Summer 6 Months, Apr. 1923– Sep. 1923.				Twelve Months, Oct. 1922– Sep. 1923.			
	Per cent. of Average.	Per cent. of Average.	Per cent. of Average.	Per cent. of Average.	Per cent. of Average.	Per cent. of Average.	Per cent. of Average.	Per cent. of Average.	Per cent. of Average.	Per cent. of Average.	Per cent. of Average.	Per cent. of Average.	Per cent. of Average.	Per cent. of Average.	Per cent. of Average.	Per cent. of Average.	Per cent. of Average.	Per cent. of Average.	Per cent. of Average.	Per cent. of Average.	Per cent. of Average.	Per cent. of Average.	Per cent. of Average.	Per cent. of Average.
Ilderton (Lilburn Tower) .....	96				93				Airdrie (Hillend Reservoir) .....				85				145				113			
Carlisle (Spital Cemetery) .....	78				112				Kilmarnock (North Craig Res.) ..				88				136				109			
Borrowdale (Seathwaite) .....	93				146				Girvan (Pinmore) .....				87				137				107			
Appleby (Castle Bank) .....	105				129				Shaws W.W. (Loch Thom) .....				96				140				115			
Abergavenny (Larchfield) .....	105				88				Lochgilphed (Poltalloch) .....				101				150				122			
Ystalyfera (Wern House) .....	92				119				Skipness Castle .....				91				128				107			
Cardiff (Ely Pumping Station) ..	107				102				Inveraray Castle Gardens .....				92				142				112			
Carmarthen (The Friary) .....	84				98				Islay (Eallabus) .....				97				158				122			
Haverfordwest (Grammar School)	96				112				Loch Leven Sluice .....				78				108				91			
Ysppyty Ystwyth (Hafod) .....	95				130				Loch Dhu .....				92				122				103			
New Radnor .....	100				84				Crieff (Strathearn Hydro) .....				86				110				96			
Lake Vyrnwy (Bank Cynon Isaf)	97				130				Glen Garry (Dalnaspidal Lodge) ..				102				106				104			
Northop (Soughton Hall) .....	84				99				Dundee (Eastern Necropolis) .....				93				115				104			
Dolgelly (Bryntirion) .....	110				151				Montrose (Sunnyside Asylum) ..				91				116				103			
Llandudno .....	79				95				Braemar (Bank) .....				110				124				116			
Llandwrog (Glynllivon Park) ..	85				118				Logie Coldstone School .....				97				124				110			
Holyhead (Salt Island) .....	77				108				Aberdeen (Cranford House) .....				107				135				120			
Douglas (Borough Cemetery) ..	85				116				New Deer Schoolhouse .....				101				142				120			
Stoneykirk (Ardwell House) .....	89				125				Gordon Castle .....				85				120				102			
Dalry (Glendarrock) .....	84				130				Grantown-on-Spey .....				81				143				111			
Auchencairn (Torr House) .....	87				136				Nairn (Delnies) .....				72				119				95			
Durrisdeer (Drumlanrig Garden)	86				158				Fort Augustus (St. Benedict's) ..				92				120				103			
Hawick (Bransholme) .....	84				114				Loch Quoich (Glenquoich) .....				94				135				109			
Marchmont House .....	84				83				Arisaig House .....				88				138				110			
North Berwick Reservoir .....	72				94				Fort William .....				86				138				105			
Moorfoot Hills (Gladhouse Res.)	88				122				Alness (Ardross Castle) .....				89				135				108			
Biggar .....	86				147				Loch Torridon (Bendamph) .....				84				129				102			

‡ For counties see Table XVIII, pp. 105–109.



## 10. THE TOTAL FALL OF RAIN IN 1923 AND ITS RELATION TO THE AVERAGE.

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The rainfall for the year is given for each station in the British Isles in the General Table, Part III of this volume. It is represented on the folding map opposite page 118.

Such a map is dominated, however, by the contrast between the normally wet and the normally dry districts, and the characteristics of a particular year are brought out better by a map such as that opposite p. 120, in which the ratio of the rainfall for the year to the average is shown.

Statistics on which the latter map is based will be found in part in Table XVIII, pp. 105–109, where the annual percentages are tabulated for the same stations as the monthly ones. Additional data are set out in Table XXII, p. 120.

The general means of the percentages have been computed from the station values in Tables XVIII and XXII together. For the British Isles as a whole the rainfall of the year 1923 was 14 per cent. above normal. In England the excess was 12, in Wales 18, in Scotland 20, and in Ireland 10 per cent.

As a general rule the stations with the higher percentages were in the districts which are normally wet, those with lower percentages in the dry districts. This is evidence that the rainfall of the year was more orographical than usual, in fact, in the whole series of maps for all the years from 1868 onwards\* there is none more typical of orographical rainfall.

As far as our information goes the greatest excess in the rainfall for the year was at Eallabus, in Islay in the Inner Hebrides, where

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\* *Q. J. R. Met. Soc.*, Vol. XLIX, No. 208. "Fluctuations of Annual Rainfall considered cartographically," by Carle Salter and J. Glasspoole.

it reached 155 per cent. The serious effect of the continued rain in the Hebrides and the west of Scotland generally has been emphasized already.

The high total for the year in south Lancashire is to be attributed in part to the heavy rain which produced the floods in November. Other high values, notably that near Brighton, are associated with the thunderstorms of July.

The places with rainfall considerably below normal were all near the east coast of Great Britain, between the Tay and the English Channel. The lowest value of 77 per cent. occurred at Balcarres, Colinsburgh, in Fifeshire, where the fall was 24·84 in.

The summary for the British Isles is as follows:—

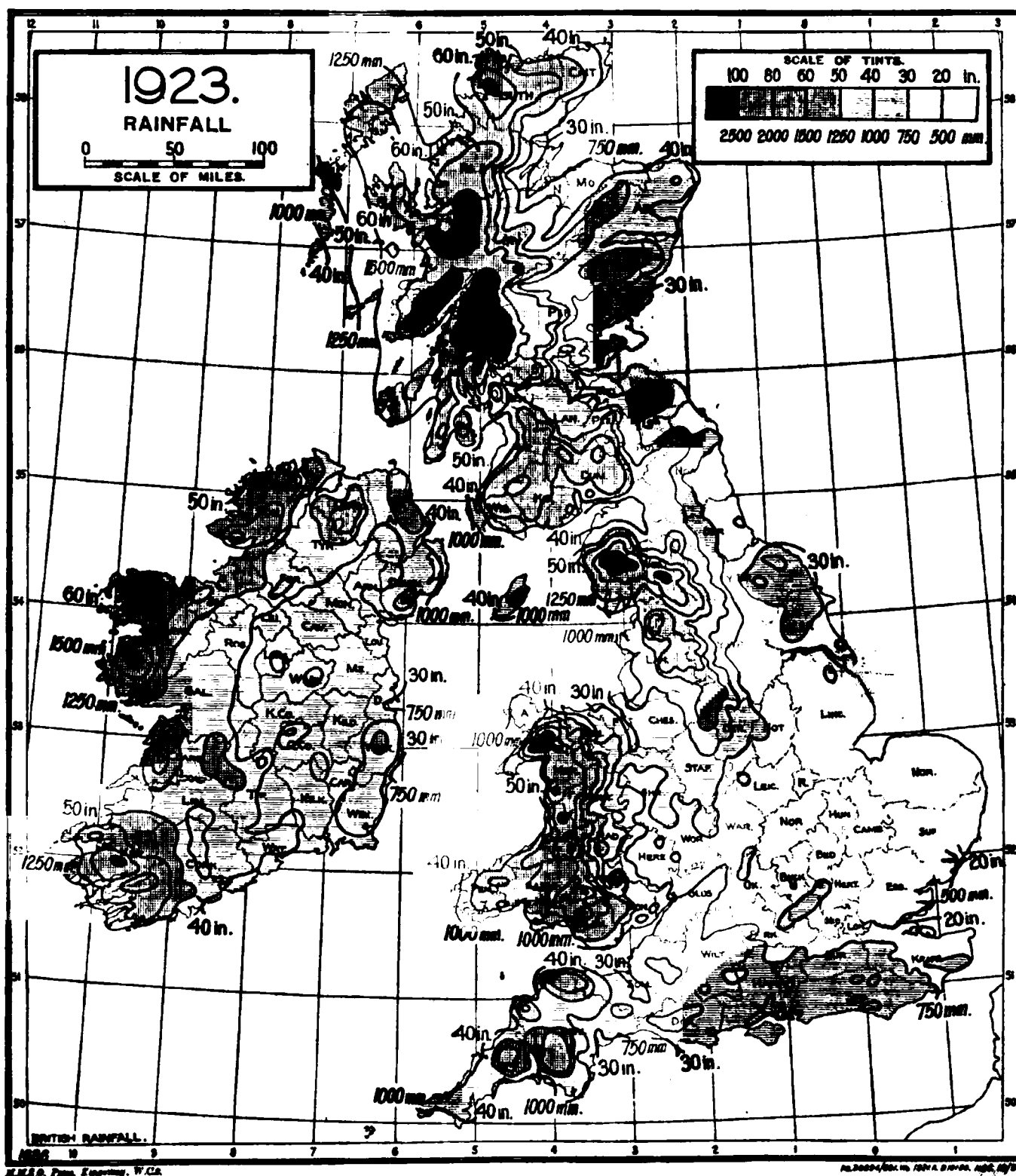
Table XX.—*General Rainfall, 1923, compared with average.*

Countries.	No. of Stations.	Average 35 years 1881–1915.		1923		
				Per cent.	Rainfall.	
		in.	mm.		in.	mm.
England .. ..	135	32·67	830	112	36·6	930
Wales .. ..	27	50·14	1,274	118	59·2	1,500
England and Wales	162	35·23	895	113	39·8	1,010
Scotland .. ..	63	50·32	1,278	120	60·4	1,530
Ireland .. ..	50	43·30	1,100	110	47·6	1,210
British Isles ..	276	41·41	1,052	114	47·2	1,200

The percentages for the year were obtained by taking the means of the percentages in Tables XVIII and XXII. The rainfall for the year was deduced from the figures in the preceding columns. Previous experience has shown that the results obtained in this way differ but slightly from those obtained by the laborious cartographical method in which the zones between successive isohyetal lines are measured.

In the following table the percentages are given for each year from 1868 onwards. This table is based on the statistics utilised by Messrs. Salter and Glasspoole in the paper\* to which reference has already been made, viz., "The Fluctuations of Annual Rainfall

\* *Q. J. R. Met. Soc.*, Vol. XLIX, No. 208, and *The Meteorological Magazine*, June, 1923, p. 103.





considered cartographically." The rainfall of Scotland with 120 per cent., the largest value since 1903, is worthy of special mention.

Table XXI.—*Showing the Annual Rainfall for each year, 1868 to 1923, expressed as a Percentage of the Average of the 35 years, 1881 to 1915.*

Year.	England and Wales.	Scotland.	Ireland.	British Isles.	Year.	England and Wales.	Scotland.	Ireland.	British Isles.
1868 ..	99	113	104	104	1896 ..	93	99	94	95
1869 ..	105	100	98	102	1897 ..	101	95	114	103
1870 ..	82	80	95	84	1898 ..	87	109	98	95
1871 ..	97	92	98	96	1899 ..	94	106	102	99
1872 ..	144	134	128	137	1900 ..	109	119	115	113
1873 ..	89	105	94	94	1901 ..	88	94	96	92
1874 ..	95	108	98	99	1902 ..	84	86	92	87
1875 ..	114	99	99	107	1903 ..	128	129	124	127
1876 ..	117	114	104	113	1904 ..	89	93	101	93
1877 ..	126	131	123	127	1905 ..	86	97	89	89
1878 ..	110	92	96	102	1906 ..	101	111	93	101
1879 ..	109	91	96	100	1907 ..	99	104	99	100
1880 ..	113	86	95	102	1908 ..	91	99	96	94
1881 ..	109	95	100	103	1909 ..	105	101	93	101
1882 ..	127	113	113	120	1910 ..	113	105	109	110
1883 ..	107	106	110	108	1911 ..	94	99	96	96
1884 ..	88	104	98	94	1912 ..	125	108	108	116
1885 ..	101	91	92	96	1913 ..	98	93	106	99
1886 ..	117	94	109	110	1914 ..	108	103	108	107
1887 ..	74	80	77	77	1915 ..	110	96	102	105
1888 ..	98	93	98	97	1916 ..	114	117	114	115
1889 ..	94	85	93	92	1917 ..	98	97	99	97
1890 ..	90	103	97	95	1918 ..	107	106	111	108
1891 ..	111	100	98	105	1919 ..	105	93	91	98
1892 ..	94	96	98	95	1920 ..	109	105	111	109
1893 ..	83	97	82	86	1921 ..	70	99	88	82
1894 ..	108	102	104	105	1922 ..	105	94	92	100
1895 ..	96	95	96	95	1923 ..	113	120	110	114

In conclusion we set out some of the highest and lowest rainfalls shown in the General Table for the year 1923. As usual most of the low values occur near the east coast.

England :—	in.
Essex, Walton-on-the-Naze.. ..	17·94
Essex, Shoeburyness . . . .	19·49
Essex, Clacton (Clay Hall) ..	19·82

Scotland :—	
Fife, Inchkeith .. .. .	19·99

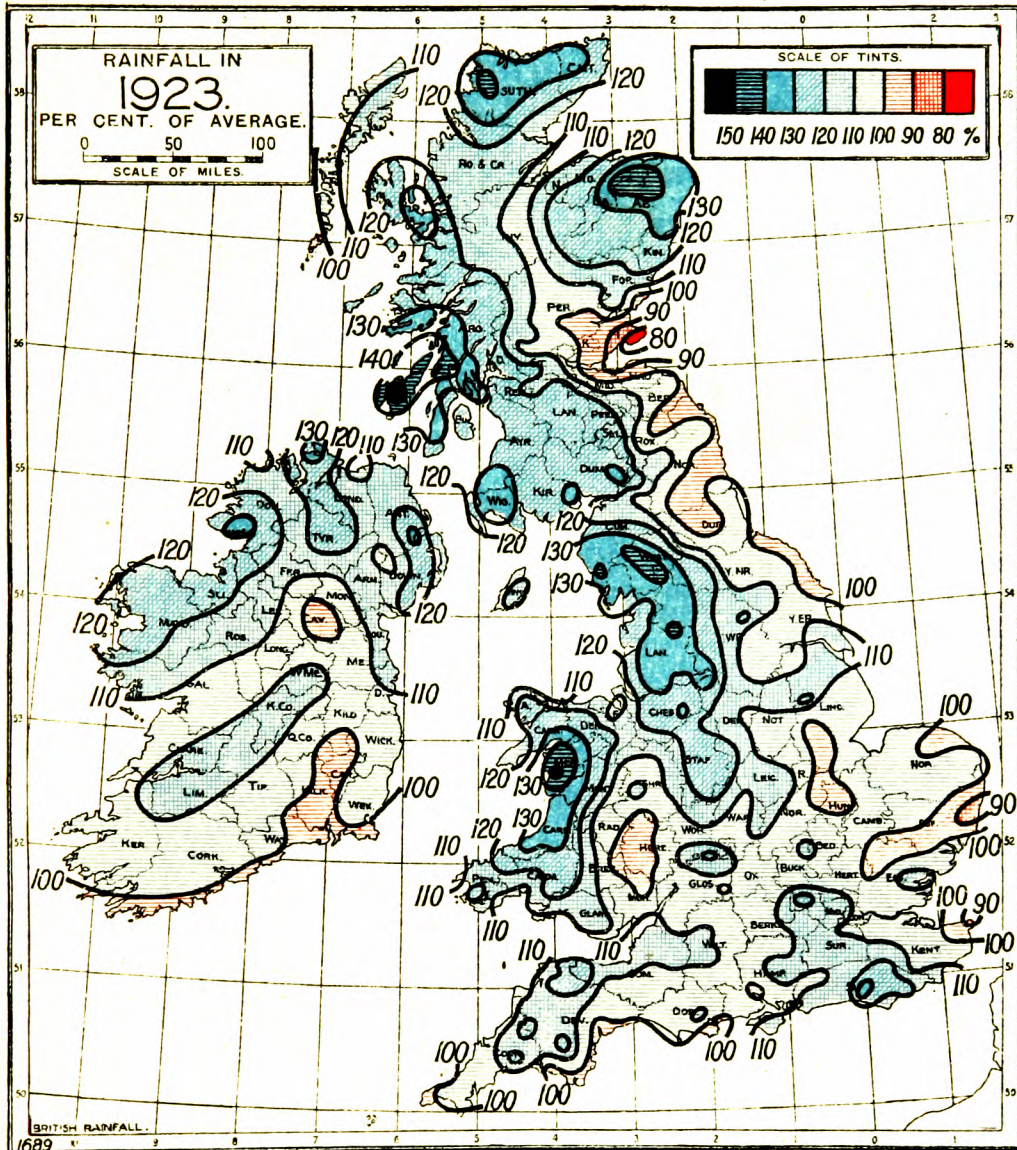
**TABLE XXII.—RAINFALL OF 1923 AS PERCENTAGE OF AVERAGE, 1881-1915.\***

County.	Station.	Per cent. of Average.	County.	Station.	Per cent. of Average.
<b>ENGLAND.</b>					
Surrey ....	Caterham Mental Hospital. ....	110	Yorks W.R.	Wakefield (Clarence Park). ....	110
Kent .....	Folkestone (Cherry Gardens) ..	105	"	Malham Tarn .....	136
" .....	Rochester (Knights Place) ....	103	"	Harrogate (Harlow Moor Obsy.)	115
Sussex ....	Yapton (Bonhams) .....	118	" E.R.	Warter .....	105
" .....	Horsham (Wimblehurst) .....	112	"	Spurn Head .....	116
" .....	St. Leonards (Gensing Gardens)	121	"	Lowthorpe (The Elms) .....	106
Hants. ....	Totland Bay (Aston House) ..	108	" N.R.	Malton (Broughton Rise) .....	118
" .....	Portsmouth (Victoria Park) ..	106	Durham ..	Ushaw (St. Cuthbert's College)	92
" .....	Ovington Rectory .....	114	Nor'd .....	Morpeth (Cockle Park) .....	96
Berks .....	Wellington College .....	118	"	Rothbury (Cragside) .....	91
" .....	Newbury (Greenham Common)	108	Cumb .....	Penrith (Newton Rigg) .....	125
Herts .....	Harpden (Rothamsted) .....	106	"	Ravenglass (The Grove) .....	142
Bucks .....	Newport Pagnell (The Croft) ..	110	"	Whitehaven (Irish Street) ..	158
Oxon .....	Middleton Park .....	103	<b>WALES.</b>		
N'hants ..	Pitsford (Sedgebrook) .....	109	Mon. ....	Monmouth (Pentwyn) .....	97
" .....	Oundle (Milton Road) .....	95	Glam. ....	Gorseinon (Penllergaer) .....	117
Cambs. ....	Stretham Engine .....	103	Carm. ....	Llanwrda (Dolauciothy) .....	124
Essex .....	Elsenham (Gaunts End) .....	97	Pemb. ....	St. Davids .....	98
" .....	Clacton-on-Sea .....	106	"	Pembroke (Stackpole Court) ..	115
" .....	Earls Colne (Chalkney Ho.) ..	96	"	Fishguard (Langton, Dwrbach)	115
Suffolk ....	Rendlesham Hall .....	87	Card. ....	Aberystwyth (Gogerddan) ....	135
Norfolk ...	Norwich (Christ Ch. Rd., Eaton)	105	Brec. ....	Aberdare (Nanthir Res.) .....	118
" .....	Wells (Holham Hall) .....	104	Rad. ....	Birmingham WW (Tyrmynydd)	115
Wilts .....	Salisbury Plain (Chitterne Ho.)	113	Mont. ....	Newtown (Penarth Weir) .....	113
" .....	Marlborough (Mildenhall) .....	100	Denb. ....	Wrexham (Pack Saddle Res.) ..	120
Dorset .....	Weymouth (Westham) .....	103	"	Llangerniew (Hafodunos) .....	125
" .....	Wareham (South Street) .....	99	Mer. ....	Bala (Eryl Aran) .....	138
Devon S. ....	Launceston (Polapit Tamar) ..	125	Ang. ....	Llanerchymedd (Llwydiarth Esgob)	123
" .....	Torquay (Cary Green) .....	95	<b>SCOTLAND.</b>		
" .....	Sidmouth (Sidmount) .....	91	Kirk. ....	Dumfries (Cargen) .....	131
" N. ....	Torrington (Enfield) .....	111	Dum. ....	Moffat (Craigielands) .....	123
Corn. ....	Newquay (Mount Wise) .....	106	"	Langholm (Ewes) .....	123
" .....	Falmouth (Observatory) .....	104	Rox. ....	Kelso (Broomlands) .....	90
" .....	Devonport (Empacombe) .....	106	Mid. ....	Edinburgh (Univ. Engin. Lab.)	90
" .....	Tresco Abbey .....	98	Lan. ....	Hamilton W.W. (Townhill) ..	124
Som. ....	Street (Millfield) .....	105	Ayr. ....	Maybole (Culzean Castle Grdns.)	128
" .....	Milverton (Spring Grove) .....	109	Ren. ....	Paisley (The Coats Observatory)	121
Glos. ....	Cheltenham (High Street) .....	103	Stir. ....	Strathblane (Mugdock Res.) ..	122
" .....	Clifton College .....	118	Arg. ....	Loch Sunart (Glenborrodale) ..	123
Here. ....	Hereford (Belmont Abbey) ..	94	"	Corran Lighthouse .....	123
Salop. ....	Shifnal (Hatton Grange) .....	116	"	Mull of Kintyre .....	112
Staffs. ....	Teaon (The Heath House) .....	128	Perth ....	Perth (Wellshill Cemetery) ..	94
Worc. ....	Stourport (Lincombe Lock) ..	109	Forf. ....	Kirriemuir (Lintrathen) .....	112
" .....	Blockley (Upton Wold) .....	116	Aber. ....	Ellon (Esslemont House) .....	137
War. ....	Stratford on Avon (Shotton Hall)	105	"	New Deer School .....	138
" .....	Ryton-on-Dunsmore (Ryton Ho.)	112	Inv. ....	Alvie Manse .....	127
Leic. ....	Kibworth Beauchamp .....	114	"	Inverness (High School) .....	102
" .....	Thornton Reservoir .....	112	"	North Uist (Monach) .....	85
Lincs. ....	Spalding (Pode Hole) .....	97	Shet. ....	Sumburgh Head (Dunrossness)	119
" .....	Skegness .....	100	<b>IRELAND.</b>		
" .....	Louth (Westgate) .....	108	Cork .....	Cork (University College) .....	103
" .....	Brigg .....	110	"	Midleton (Ballinacurra) .....	92
Notts. ....	Southwell (Elmfield) .....	102	Wex. ....	Foulkesmill (Longraigue) .....	101
" .....	Worksop (Hodsock Priory) .....	112	Carlow ..	Bagnalstown (Fenagh House) ..	102
Derby .....	Buxton (Devonshire Hosp.) .....	122	"	Carlow (Browne's Hill) .....	95
Ches. ....	Runcorn (Weston Point) .....	127	"	Hacketstown Rectory .....	104
" .....	Woodhead (Reservoir) .....	138	Dublin ...	Dublin (Phoenix Park) .....	109
Lancs. C. ...	Burnley (Swinden) Lower g. ..	139	W'meach..	Athlone (Twyford House) .....	110
" .....	Wigan W.W. (Worthington) ..	134	Down. ....	Newry (Bridge Street House) ..	118
" N. ....	Barrow-in-Furness (Gas Works)	141	"	Donaghadee (Coastguard Stn.)	114
" .....	Blackpool (Met. Observatory) ..	123	"	Banbridge (Milltown) .....	107
Yorks W.R.	Sedburgh (Akay) .....	147	Don. ....	Malin Head .....	134
" .....	Slaidburn (Dunsop House) ..	133	"	Letterkenny (Mental Hospital)	115
" .....	Goole .....	104			

\* See also Table XVIII, p. 105-109.



# RELATION OF RAINFALL IN 1923 TO THE AVERAGE OF 1881-1915.



The area coloured Red had rainfall below the average, that coloured Blue had rainfall above the average.



## Ireland :—

Dublin, Harold's Cross (Westfield Park) ..	25·58
Dublin, Harold's Cross (Pretoria Terrace) ..	25·93
Dublin, Dublin (Trinity College) .. ..	27·58
Dublin, Dublin (Fitzwilliam Square) ..	28·51

It should be mentioned that there are a few cases in which the readings of gauges believed to be over-exposed to the wind are included in the General Table, and for some of these gauges the amounts are very low.

## The high values include :—

## England :—

	in.
Cumberland, The Styne .. ..	247·30

## Wales :—

Carnarvon, Snowdon (Delta), No. 7 ..	212·25
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## Scotland :—

Argyll, Mull (Ben More) .. ..	159·10
Inverness, Loch Quoich (Loan) .. ..	145·10
Inverness, Ben Alder (Loch a Bhealaich) ..	141·60

## Ireland :—

Mayo, Delphi Lodge .. ..	126·60
--------------------------	--------

All these stations are situated in mountain districts.

The fall at The Styne is one of the largest annual totals ever recorded. Falls of more than 240 in. have been measured in one year at The Styne in Cumberland in 1872, at Ben Nevis Observatory in Inverness in 1898, and at Llyn Llydaw on Snowdon in 1909.

## 11. EVAPORATION AND PERCOLATION IN 1923.

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In this section will be found the results of observations made with evaporation and percolation gauges.

The evaporation gauges are square tanks sunk in the ground. The tank at Camden Square, which has been regarded as the standard one, is 6 ft. square and 2 ft. deep and is sunk into the ground so that the lip projects about 3 in.

It is hardly necessary to mention that the amount of water evaporated from such a tank is not a precise measure of the evaporation from soil and vegetation, or of the evaporation from large sheets of water. On the other hand for comparison of one month with another the observations are instructive. The amount of evaporation in the course of a day depends not only on the temperature of the air and its saturation deficit but also on its movement, so that it is to be expected that there will be more evaporation in a windy place than in a sheltered one. Thus it happens that the amounts of evaporation recorded at Hesketh Park, Southport, and at Camden Square, London, are amongst the lowest on the list.

It is the general experience in the British Isles that evaporation is very slight in the winter months. It happens frequently that the level of the water in a tank rises even when there has been no rainfall. This rise is attributed to condensation. If condensation during a month exceeds evaporation the excess is shown in the printed summary and indicated by the letter C.

The determination of the evaporation from a water surface in a windy situation is difficult, if not impossible. An evaporation gauge has been in operation at Valencia Observatory, Cahirciveen, Co. Kerry, for three years. The gauge is actually in a large level field not far from the wide Valencia River and is therefore exposed to almost the full force of the westerly winds.

Mr. Stewart, Superintendent of the Observatory, is preparing a discussion of the records of the three years. In his opinion it is doubtful whether the amount of evaporation on a day with appreciable rainfall can be determined by the evaporation gauge. We follow Mr. Stewart in utilising for this gauge only the records for days with not more than 1 millimetre of rain.

In the following table the like information for the gauge at Camden Square has also been set out.

**TABLE XXIII.—Evaporation on Days with not more than .04 in. of rain.**

1923.			Camden Square.			Valencia Observatory.		
			Number of Days.	Total inch.	Average in. / day.	Number of Days.	Total inch.	Average in. / day.
January	..	..	21	C·05	·00	14	·12	·01
February	..	..	12	C·02	·00	4	·11	·03
March	..	..	21	·30	·01	17	1·01	·06
April	..	..	23	1·04	·05	17	1·42	·08
May	..	..	20	1·57	·08	17	1·90	·11
June	..	..	25	1·99	·08	23	2·33	·10
July	..	..	23	2·77	·12	17	2·37	·14
August	..	..	23	2·28	·10	11	1·39	·13
September	..	..	20	·80	·04	12	·98	·08
October	..	..	12	·38	·03	7	·45	·06
November	..	..	23	·11	·00	6	·18	·03
December	..	..	17	·02	·00	10	·57	·06

In connection with this table the highest of the daily readings at the two stations may be noted. At Camden Square the greatest amount of evaporation on a day with no rain was .20 in. on July 13th. On paper this was exceeded on July 9th, the eve of the great thunderstorm, but as the net evaporation for that day, .26 in., is computed as the difference between the comparatively large quantities 2·10 in. (the rainfall in the standard gauge) and 1·84 (the rise of the water level in the tank), it is not to be accepted with the same confidence.

At Valencia Observatory the highest reading, .33 in., is credited to July 28th. In connection with this reading we note that there was a good deal of cloud during the day and some slight showers not measurable in the rain-gauge. There was some slight drizzle at night. The wind was never more than a moderate breeze. The day and night evaporations were .15 and .18 in. respectively.

As will be seen from the entries in Table XXV the amount of evaporation in 1923 was in most cases about normal. At Talla Water in the south of Scotland, the total was only 12·80 in. This is the lowest value on record for the station, a fact which is no doubt to be associated with the prolonged wet weather of the latter half of the year.

An indirect estimate of the evaporation from soil and vegetation is obtained by determining the amount of water which percolates through the soil. Of course this amount depends on the nature of the soil and on the plants growing on it. The soil is nearly saturated and therefore in the same condition at the beginning and end of each year, so that it is legitimate to compute the evaporation for a whole year from the percolation and rainfall, though it would not be fair to compute the evaporation in a single month.

It will be noticed that from the bare earth, as at Rothamsted, there is less evaporation than from a water surface, whereas the evaporation from the growing crops at Craibstone is more than from a sheet of water.

**TABLE XXIV.—Rainfall, Percolation and Calculated Evaporation in 1923.**

(Unless otherwise stated the size of the gauges is 3ft. × 3ft. × 3ft.).

1923.	Compton, Sussex.		Grayshott, Hants.		Harrogate, Yorks.	
	Rainfall.	Percolation.	Rainfall.	Percolation.	Rainfall.	Percolation.
	in.	in.	in.	in.	in.	in.
January .....	1·95	2·25	2·13	2·79	1·61	1·32
February .....	6·56	5·70	6·53	6·32	4·53	4·96
March .....	2·54	1·81	2·61	2·73	1·62	·89
April .....	4·07	2·29	3·51	2·47	2·00	1·06
May .....	3·44	·81	3·11	1·87	3·25	·51
June .....	·55	·09	·40	·40	·88	·01
July .....	1·24	·00	1·53	·00	2·88	·03
August .....	3·52	·00	2·93	·00	3·62	·13
September .....	2·51	·00	1·93	·00	2·41	·35
October .....	7·47	3·09	6·85	5·75	3·60	1·74
November .....	1·43	1·19	2·03	2·27	2·92	1·73
December .....	4·28	3·86	3·54	3·19	3·11	2·37
Year .....	39·56	21·09	37·10	27·79	32·43	15·10
Calculated Evaporation }	..	18·47	..	9·31	..	17·33

1923.	Rothamsted, Herts.				Craibstone, Aberdeen.			
	Rainfall.	Percolation.			Rainfall.	Percolation. §		
		20 in. Soil.	40 in. Soil.	60 in. Soil.		1* 40 in. Soil.	2† 40 in. Soil.	3‡ 40 in. Soil.
	in.	in.	in.	in.	in.	in.	in.	in.
January .....	1·42	1·27	1·45	1·30	2·56	2·40	2·22	2·54
February .....	3·80	3·51	3·60	3·35	8·92	8·18	7·84	8·57
March .....	2·39	1·59	1·75	1·62	1·55	1·69	1·54	1·81
April .....	1·43	·37	·43	·40	2·52	·69	·63	·69
May .....	1·59	·18	·18	·18	5·33	2·89	2·77	3·02
June .....	·57	·00	·05	·05	1·01	·05	·05	·04
July .....	3·74	1·38	1·39	1·35	2·18	·00	·00	·00
August .....	2·18	·34	·38	·29	4·65	·00	·00	·00
September .....	2·34	1·01	1·02	·89	3·15	·01	·00	·01
October .....	4·61	3·69	3·69	3·45	4·22	1·64	1·23	1·23
November .....	1·47	1·08	1·15	1·07	3·46	2·88	2·70	2·98
December .....	2·69	2·63	2·59	2·47	4·64	4·21	4·02	4·32
Year .....	28·23	17·05	17·68	16·42	44·19	24·64	23·00	25·21
Calculated Evaporation }	..	11·18	10·55	11·81	..	19·55	21·19	18·98

\* Unmanured. † Manured. ‡ Manured and limed. § The gauges were cropped with hay.

TABLE XXV.—Evaporation in 1923.

List of Stations.	County.	Observer.	Particulars of Tank.			
			Height above		Side.	Capacity.
			Ground.	Sea Level.		
Camden Square	London . . . . .	2 Roy. Met. Soc. . .	ft. in.	ft.	ft. in.	Gals.
Otterbourne . .	Hampshire . . . .	5 E. C. Rodda, Esq.	0 3	111	6 0	450
Ormesby St. M.	Norfolk . . . . .	2 Gt. Yarmouth W.W.	0 3	112	6 0	450
Burrator . . . .	South Devon . . .	2 F. Howarth, Esq.	0 3	21	6 0	450
Kennick . . . . .	" " . . . . .	5 S.C. Chapman, Esq.	0 3	755	6 0	450
Revesby . . . . .	Lincoln . . . . .	3 T. Henry Tyson, Esq.	0 3	835	6 0	450
Southport . . . .	Cen. Lancashire . .	3 J. Baxendell, Esq.	0 2	130	6 0	450
Ardsley No. 1.	Yorkshire, W.R. . .	8 C. C. Smith, Esq.	0 3	37	3 0	112
" No. 2.	" " . . . . .	8 M. R. Barnett, Esq.	0 3	395	6 0	450
Lower Laithe . .	" " . . . . .	9 A. S. West, Esq.	0 3	326	6 0	450
Harrogate . . . .	" " . . . . .	11 Mess. Leslie & Reid	0 6	772	6 0	450
Talla Water . . .	Peebles . . . . .	1 Pro. T. Hudson Beare	0 3	589	6 0	450
Edinburgh . . . .	Midlothian . . . .	5	0 3	904	6 0	450
				227	6 0	200

1923.	Camden Square.	Otterbourne.	Ormesby St. Michael.	Burrator.	Kennick.	Revesby.	Southport.
	in.	in.	in.	in.	in.	in.	in.
January . . . . .	c .01	.14	.32	.39	.04	.17	.00
February . . . . .	.16	.32	.57	.18	.46	.03	.13
March . . . . .	.65	.99	.79	.87	1.00	.78	.63
April . . . . .	1.26	1.69	1.88	1.27	1.30	1.79	1.58
May . . . . .	2.16	2.76	1.90	1.78	2.86	1.61	2.56
June . . . . .	2.16	2.70	2.64	2.33	3.71	1.65	2.59
July . . . . .	3.59	4.39	3.45	2.56	3.59	3.00	2.88
August . . . . .	2.79	3.69	2.98	2.45	3.32	2.27	2.57
September . . . . .	1.24	2.09	1.55	1.52	1.83	1.38	1.44
October . . . . .	.73	1.12	.89	.71	1.10	.47	.66
November . . . . .	.24	.31	.34	.13	.26	.34	.24
December . . . . .	.02	.20	.04	.19	.21	.08	.03
Year . . . . .	14.99	20.40	17.35	14.38	19.68	13.57	15.31
Average, 1908-1923	15.35	19.67	...	...	18.68	14.69	...
Difference . . . . .	- .36	+ .73	...	...	+1.00	-1.12	...

1923.	Ardsley No. 1.	Ardsley No. 2.	Lower Laithe.	Harrogate.	Talla Water.	Edinburgh.	Mean of 13 Records.
	in.	in.	in.	in.	in.	in.	in.
January . . . . .	.23	.10	.30	.49	.15	.18	.19
February . . . . .	.13	.07	c .06	.63	.25	.30	.24
March . . . . .	.84	.73	.63	.90	1.01	.69	.87
April . . . . .	1.95	1.78	1.59	1.78	1.53	1.19	1.58
May . . . . .	2.10	1.84	2.49	2.54	1.73	1.85	2.17
June . . . . .	2.54	2.50	2.90	2.91	2.27	2.75	2.59
July . . . . .	2.77	2.78	2.72	3.15	2.25	2.41	3.04
August . . . . .	2.85	2.46	2.08	2.90	1.74	1.65	2.59
September . . . . .	1.74	1.42	1.47	2.21	1.13	1.20	1.56
October . . . . .	1.16	.84	.81	1.74	.56	.73	.89
November . . . . .	.38	.20	.52	.62	.10	} 1.20	} .45
December . . . . .	.09	.00	c .19	.22	.08		
Year . . . . .	16.78	14.72	15.26	20.09	12.80	14.15	16.11
Average, 1908-1923	17.43	...	...	18.68	16.65	...	...
Difference . . . . .	- .65	...	...	+1.41	-3.85	...	...

NOTE.—In the Table c indicates condensation.

Table XXVI—*Evaporation at Camden Square, 1885–1923.*

	Jan. in.	Feb. in.	Mar. in.	April. in.	May. in.	June. in.	July. in.	Aug. in.	Sept. in.	Oct. in.	Nov. in.	Dec. in.	Total in.
1885 ..	·20	·38	·86	1·71	1·98	2·77	3·29	2·25	1·13	·77	·17	·11	15·62
1886 ..	·23	·13	·53	1·59	1·78	2·93	3·12	1·86	1·46	·63	·27	·12	14·65
1887 ..	c·07	·29	·76	1·72	1·79	3·68	3·76	2·54	1·25	·78	·21	·07	16·78
1888 ..	·07	·37	·48	1·16	2·71	2·24	1·44	1·90	1·17	·60	·43	·03	12·60
1889 ..	·03	·18	·62	1·07	1·76	2·97	2·34	1·96	1·52	·42	·29	c·13	13·03
1890 ..	·08	·19	·50	1·44	2·63	2·14	2·33	2·02	1·27	·79	·31	·04	13·74
1891 ..	·03	·16	·73	1·35	1·66	2·83	2·34	1·67	1·00	·62	·20	·22	12·81
1892 ..	·05	·09	·60	1·88	2·65	3·05	2·84	2·20	1·01	·36	·02	·20	14·95
1893 ..	c·03	·01	·92	2·33	3·06	3·62	3·12	2·85	1·48	·70	·11	·01	18·18
1894 ..	c·04	·28	·83	1·17	2·10	2·48	2·49	1·91	·97	·37	·20	·11	12·87
1895 ..	·14	·64	·36	1·26	3·06	3·31	3·07	2·12	1·27	·54	·19	·07	16·03
1896 ..	·16	·24	·64	1·57	3·06	3·21	3·63	1·96	·68	·47	·18	·00	15·80
1897 ..	·23	·21	·76	1·23	2·99	2·48	3·60	2·49	·99	·63	·26	c·14	15·73
1898 ..	·19	·37	·51	1·28	1·56	2·10	2·96	2·53	1·73	·45	·11	·16	13·95
1899 ..	·04	·28	·52	1·24	2·34	3·67	4·03	3·78	2·01	·45	·41	·11	18·88
1900 ..	·03	·16	·80	1·46	2·35	2·85	4·25	2·61	1·61	·89	·24	·15	17·40
1901 ..	·13	·24	·60	1·98	3·25	3·85	3·37	3·19	1·42	·64	·31	c·05	18·93
1902 ..	·16	·15	·71	1·75	1·78	2·33	3·30	1·71	1·47	·69	·28	·27	14·60
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
1911 ..	·15	·32	·59	1·77	2·58	3·34	4·60	3·19	1·96	·64	·37	·02	19·53
1912 ..	·24	·16	·79	2·34	2·44	2·49	2·55	1·69	1·41	·39	·33	·12	14·95
1913 ..	·10	·32	·77	1·25	2·49	3·13	2·15	2·09	1·07	·61	·36	·32	14·66
1914 ..	·09	·24	·52	1·84	2·56	2·93	2·72	1·99	1·68	·70	·28	·05	15·60
1915 ..	·11	·13	·66	1·65	2·90	3·15	2·50	1·76	1·61	·56	·25	c·03	15·25
1916 ..	·19	·34	·30	1·61	2·32	2·20	2·23	2·34	1·20	·76	·34	c·04	13·79
1917 ..	·11	·17	·53	1·18	3·06	3·01	2·81	1·95	1·16	·75	·34	·12	15·19
1918 ..	·14	·27	·85	·89	2·38	3·01	2·59	2·04	1·69	·40	·24	·16	14·66
1919 ..	c·12	·13	·66	1·06	2·94	3·39	1·90	2·78	1·53	·61	·08	·06	15·02
1920 ..	·20	·24	·78	·85	2·71	2·85	2·09	2·00	1·04	·66	·04	·00	13·46
1921 ..	·20	·28	·96	1·91	3·04	3·66	4·17	2·56	1·72	·72	·19	·28	19·69
1922 ..	·16	·31	·96	1·20	2·93	3·36	2·09	1·74	1·11	·66	·27	·14	14·93
1923 ..	c·01	·16	·65	1·26	2·16	2·16	3·59	2·79	1·24	·73	·24	·02	14·99
Average 1885-1919	·10	·25	·66	1·51	2·43	2·91	2·97	2·33	1·38	·62	·25	·09	15·50
Diff. 1923-1885	·11	·09	·01	·25	·27	·75	·62	·46	·14	·11	·01	·07	·51

NOTE.—c indicates condensation.



METEOROLOGICAL OFFICE, AIR MINISTRY.

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BRITISH RAINFALL ORGANIZATION.

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BRITISH RAINFALL, 1923.

PART III.

GENERAL TABLE

OF

TOTAL RAINFALL IN 1923

AT

STATIONS

IN

GREAT BRITAIN AND IRELAND

WITH THE NAMES OF

THE OBSERVERS

OR OTHER AUTHORITIES FOR THE OBSERVATIONS.

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ISSUED BY THE AUTHORITY OF THE METEOROLOGICAL COMMITTEE.

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## GENERAL TABLE OF TOTAL RAINFALL IN 1923.

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### EXPLANATORY NOTE.

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The Divisions in the General Table are the same as those adopted by the Registrars-General of England and Scotland.

The counties are divided up into numbered areas, corresponding to the river-basins. An account of these river-divisions for England and Wales was given in a special article in Part I of *British Rainfall, 1910* (pp. 37–66), and a similar article on the river-divisions of Scotland and Ireland appeared in Part I of *British Rainfall, 1911* (pp. 49–72), with detailed maps showing all the river-divisions in each Division. Reprints of these articles are available. The sequence of river divisions in Great Britain proceeds anti-clockwise from the Solway Firth. For example, in the West Riding of Yorkshire we have four divisions for rivers flowing to the Irish Sea, followed by eight divisions for rivers tributary to the Humber.

The stations in each river-division are arranged nearly in the order of their latitude from South to North. For convenience, the first name defining a station is that of a place which can be easily found on any large scale map ; occasionally it is in an adjoining county. The second name is added to fix the site of observation more closely, *e.g.*, “Haslemere (Clammer Hill)” means Clammer Hill, near Haslemere.

In some cases the records have been received from a local rainfall organization. This has been indicated by a footnote.

In the column headed “Diameter,” figures in old style type indicate the length of the sides of rectangular gauges.

The letter D signifies that daily observations have been received and are complete for the year ; d, that less complete daily records have been received ; w indicates that weekly readings have been received, and M that the gauge is read only once a month, usually on the 1st.

(R) denotes that the gauge is a mechanical one, the correct reading of which depends on the mechanism being in working order.

(A) denotes that the amount of rainfall is taken from the chart of an autographic instrument.

(+A) denotes that the amount of rainfall is taken from an ordinary gauge and that an autographic instrument is also in use.

Where two or more gauges are maintained at the same station the comparison of the records is seldom of general interest. The rule has now been adopted that in such cases only one record will be published in *British Rainfall*. The use of mechanical gauges for measuring the total rainfall is not recommended by the *Meteorological Office*, and the number of records marked (R) or (A) is therefore small.

Gauges which have been recently inspected and found to be over-exposed on moorland have been so marked. It is likely that there are other gauges (notably some of those at lighthouses) which are also over-exposed.

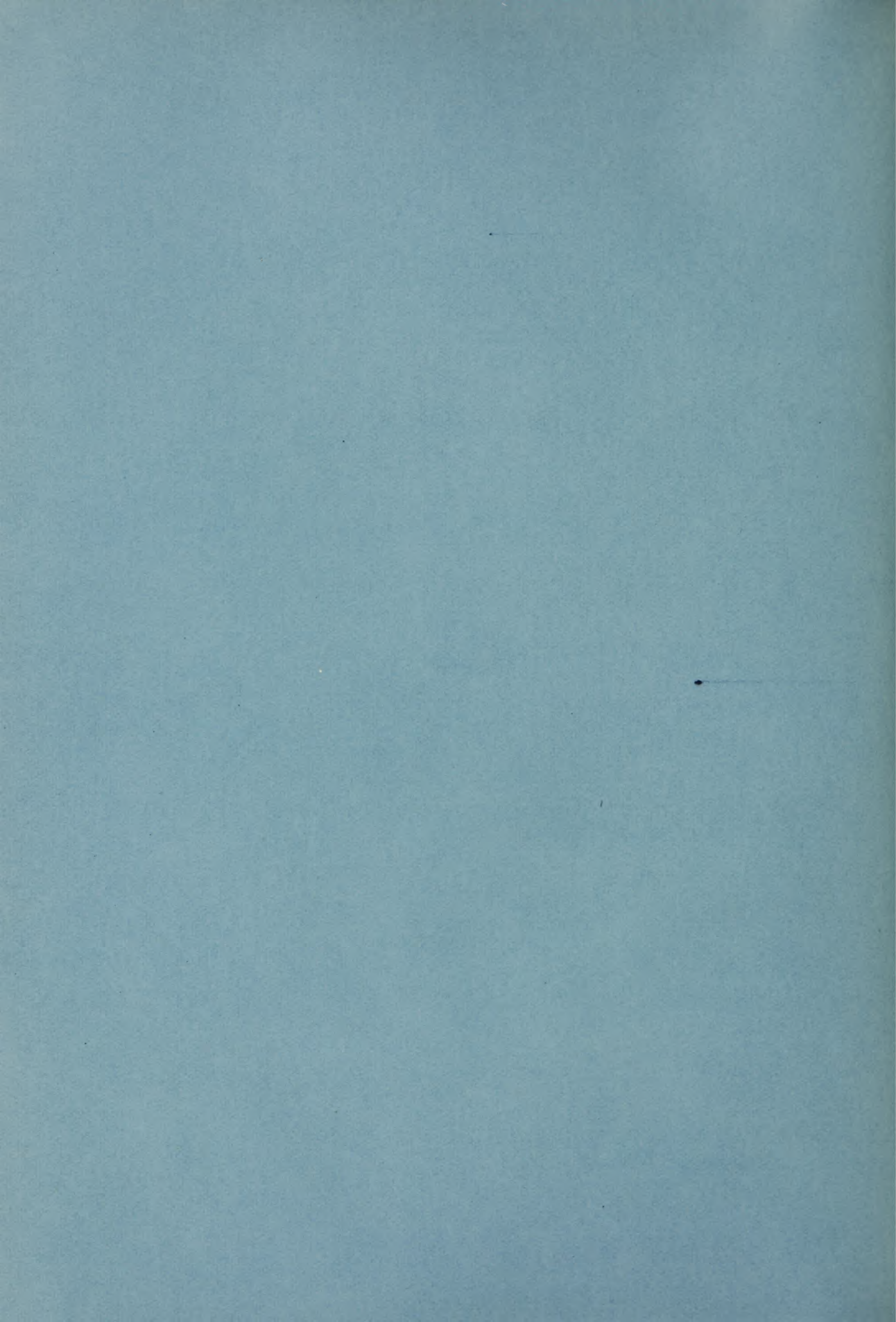
The total rainfall is printed in ordinary roman type under the heading of the unit in which the readings were made, *i.e.*, in inches or millimetres. The total as converted from inches to millimetres, or from millimetres to inches, is printed in old style type. If the record was taken during part of the year in inches and part in millimetres, the figures in both columns are printed in old style type, and in the few instances in which the readings have been made in *both* units throughout both columns are printed in roman type.

A few entries of total rain will be found in italics—indicating that the values have been corrected, *e.g.*, when snow has been lost, when the amount for a short period has been computed from other records, or when the gauge has been moved a short distance during the year. A record is not as a rule printed if the gauge has been moved more than a mile, or if there is a greater difference than 50 ft. of altitude between the two positions.

A note of interrogation (?) implies doubt, not necessarily error. The absence of information is indicated by ..







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## ENGLAND AND WALES.

## DIVISION I.—LONDON. (Area, 117 sq. mi.)

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain. 1923	Days with ·01 in. or more.	Days with ·04 in. or more.
		Diam.	Height Ground	above Sea Level.			
1.—THAMES.—Right Bank Tributaries. 67 sq. mi.					in. ft.	mm.	in.
BERMONDSEY.							
LAMBETH.							
D Brixton Hill Reservoir	Met. Water Board.	5	1	121	633	24·93	180 127
BATTERSEA.							
D Battersea Water Works	Mr. F. J. Goldsworthy	5	3	6	610	24·00	160 118
WANDSWORTH.							
D Streatham (Conyers Road)	Met. Water Board.	5	1	6 119	620	24·41	164 127
D Streatham Park (Pendle Road)	F. W. Snell, Esq.	8	1	0 125	630	24·81	183 124
D Streatham Hill Reservoir	Met. Water Board.	5	3	2 205	629	24·75	166 121
D Putney Heath Reservoir	Met. Water Board.	5	1	6 180	621	24·44	180 129
D Balham High Road	(+A) E. J. Elford, Esq., C.E.	5	1	6 89	662	26·08	185 120
D Wandsworth C. (Loxley Rd.)	F. J. Brodie, Esq.	8	1	0 105	634	24·95	185 120
D Southfields (Coronation Gds)	(+A) E. J. Elford, Esq., C.E.	5	1	6 37	584	22·99	156 100
D Southfields (Wincanton Rd.)	A. T. Bench, Esq.	5	1	2 50	631	24·85	159 114
D Larkhall Rise	Guy M. Quiller, Esq.	5	1	1 55	614	24·17	173 117
D Clapham Com. (Bromfelde Rd.)	H. N. Prentice, Esq.	5	1	2 70	575	22·64	157 118
CAMBERWELL.							
D Sydenham Hill (The Chestnuts)	E. H. Goad, Esq.	5	0	9 315	661	26·03	170 133
D Nunhead (Southwark W.W.)	Met. Water Board.	5	1	0 175	593	23·33	177 125
DEPTFORD.							
D Water Works	Met. Water Board.	5	1	0 20	587	23·10	167 121
GREENWICH.							
D Deptford Pumping Station	London County Council	8	4	0 18	574	22·60	156 118
D Royal Observatory	Sir F. W. Dyson, F.R.S.	8	0	5 149	610	24·02	181 125
D Westcombe Park Road	Rev. T. R. Price	8	1	3 154	611	24·07	190 124
LEWISHAM.							
D Grove Park (The Avenue)	A. Malden, Esq.	5	1	6 180	654	25·76	170 123
D Forest Hill Reservoir	Met. Water Board.	5	1	3 340	671	26·40	179 139
D Clarendon Road	G. E. Dacey, Esq.	5	1	0 98	666	26·22	205 132
WOOLWICH.							
D Eltham (High Street)	Met. Water Board.	5	1	0 245	607	23·91	169 117
2.—THAMES—Left Bank Tributaries. 50 sq. mi.							
KENSINGTON.							
D Harley Gardens	Mrs. Hamlyn Price	5	1	5 29	632	24·88	174 126
D Victoria & Albert Museum	The Director	8	0	6 27	641	25·22	185 129
D Holland House	Mr. P. B. Rintoul	5	4	6 69	629	24·78	165 128
D Cam House	Rt. Hon. Lord Phillimore	5	3	0 100	642	25·28	.. ..
D Campden Hill	Met. Water Board.	8	1	0 142	645	25·41	159 137
D Kensington Palace	(+A) The Meteorological Office.	8	1	0 80	669	26·36	189 136
HAMMERSMITH.							
FULHAM.							
D Acfold Road	Mrs. H. W. Carter	5	1	0 13	593	23·36	.. ..
D Hammersmith Cemetery	Mr. R. J. Brown	5	1	0 17	637	25·06	175 125
CHELSEA.							
D Physic Garden	W. Hales, Esq.	5	1	0 20	591	23·26	168 119
D Oakley Street	A. Hampton Brown, Esq.	5	1	0 25	581	22·89	177 121
D St. Luke's Gardens	W. R. Manning, Esq., C.E.	5	1	0 25	631	24·84	177 124



## DIVISION I.—LONDON—(con.).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain.		Days with ·01 in. or more.	Days with ·04 in. or more.		
		Diam.	Height Ground	above Sea Level.	1923					
2.—THAMES—Left Bank Tributaries—(con.).					in.	ft. in.	ft.	mm.	in.	
WESTMINSTER.										
D	Western Pumping Station....	London County Council ...	8	1	0	19	588	23·14	159	120
D	King's Scholar's Pond .....	London County Council ..	8	11	6	31	593	23·34	182	120
d	St. George's Square .....	T. H. McEwen, Esq. ....	5	0	5	..	608	23·95	..	118
D	Buckingham Palace.....	Mr. W. Osborne.....	5	8	0	35	634	24·97	171	124
D	Kensington Gardens ....	(+A)Prof. S. M. Dixon .....	5	1	0	78	610	24·02	164	123
D	St. James's Park .....	(+A)The Meteorological Office..	8	1	0	27	606	23·86	168	125
D	Spring Gardens .....	London County Council ..	8	6	0	35	621	24·41	179	137
ST. MARYLEBONE.										
D	Royal Botanic Gardens.....	J. L. North, Esq.....	8	1	0	130	683	26·91	175	136
d	Hamilton Terrace .....	E. Heron Allen, Esq., F.R.S.	5	0	6	..	636	25·05	..	..
HAMPSTEAD.										
D	Barrow Hill Reservoir .....	Met. Water Board.....	5	1	0	175	667	26·26	174	139
d	Kidderpore Reservoir .....	Met. Water Board .....	5	1	0	322	666	26·22	..	..
D	New End Square.....	Mr. W. Pikesley .....	5	1	0	..	787	30·97	162	131
D	Observatory .....	E. L. Hawke, Esq. ....	8	1	0	451	732	28·82	184	143
ST. PANCRAS.										
D	Camden Square .....	(+A)Royal Meteorological Soc.	8	1	0	111	687	27·03	182	135
D	Camden Square ....	SnowdonRoyal Meteorological Soc.	5	1	0	111	686	27·01	182	134
M	Camden Square .....	Royal Meteorological Soc.	5	1	0	111	688	27·08	..	..
STOKE NEWINGTON.										
D	New River Filter Beds.....	Met. Water Board.....	5	1	3	101	637	25·10	173	126
D	New River Reservoirs .....	Met. Water Board.....	5	1	0	105	633	24·92	182	132
HACKNEY.										
	Clapton Pond .....	(+A)Norman Scorgie, Esq., C.E.	5	1	0	69	595	23·43	170	123
HOLBORN.										
FINSBURY.										
D	New River Head.....	Met. Water Board .....	8	2	6	95	594	23·39	174	124
CITY OF LONDON.										
D	Guildhall .....	E. E. Finch, Esq., C.E. ....	8	2	6	50	544	21·42	172	124
BETHNAL GREEN.										
POPLAR.										
D	Old Ford Pumping Station...	Met. Water Board.....	8	0	9	19	598	23·56	179	130
D	Old Ford (Penstock House)(+A)	London County Council..	8	1	0	43	605	23·83	174	126
WOOLWICH.										
D	N. Woolwich Pumping Stn.(+A)	London County Council ..	8	0	9	12	557	21·92	159	112
D	Barking Outfall .....	London County Council ..	8	0	9	9	530	20·87	188	115

## DIVISION II.—SOUTH-EASTERN COUNTIES.

SURREY. (Area, 725 sq. mi.).

## 1.—ARUN. 45 sq. mi.

Haslemere (Clammer Hill) ....	Mrs. Glennie .....	5	1	6	400	917	36·09	187	141
D Chiddingfold (Stonehurst) ....	H St. John H. Bashall, Esq.	5	1	1	200	863	33·96	178	132
D Hambledon (Rossall) .....	L. R. Furneaux, Esq. ....	5	1	0	250	888	34·96	220	146
Holmbury St. Mary (Joldwynds)	J. Barber, Esq. ....	5	1	0	530	923	36·35	165	151

## 2.—MEDWAY. 50 sq. mi.

D East Grinstead (Lockeridge)...	Lt. Col. J. F. Forbes.....	5	0	5	320	953	37·54	185	145
D Dormans Park (Chartham Park)	I. D. Margary, Esq. ....	5	1	0	270	920	36·23	196	147
D Dormans Park (Hill Crest) ....	Mrs. H. R. Mill .....	5	1	0	320	943	37·14	199	144

## DIVISION II.—SOUTH-EASTERN COUNTIES—(con.).

STATIONS.	AUTHORITIES.	Rain Gauge.				Depth of Rain.		Days with ·01 in. or more.	Days with ·04 in. or more.
		Diam.	Height Ground	above Sea Level.	1923				
SURREY—(con.).		in.	ft.	in.	ft.	mm.	in.		
2.—MEDWAY—(con.)									
d Lingfield (Felcourt) .....	R. McAlpine, Esq. ....	5	1	3	225	923	36·33	186	146
d Blindley Heath (Hare Lane)...	Major H. W. Fife Scott....	5	1	0	300	731	28·80	..	..
d Oxted (Stone Hall) .....	W. P. Metcalfe, Esq. ....	5	1	2	320	869	34·21	205	147
Oxted (West Heath) .....	Norman W. Grieve, Esq. ....	8	1	2	500	877	34·51	186	145
Limpsfield (Ballards Shaw) ...	Miss D. F. Jackson* .....	5	1	1	500	915	36·02	201	141
3.—THAMES—Darent. 22 sq. mi.									
Chelsham (Ledgers) .....	Mrs. H. Daniell .....	5	1	5	620	915	36·02	..	..
Farleigh (Croydon Ment. Hosp.)	Croydon Corporation .....	8	1	0	600	852	33·55	183	135
Chelsham (Fairchildes) .....	A. S. Daniell, Esq. ....	8	1	0	600	877	34·53	..	..
Chelsham (Fairchildes) .....	Mr. G. Mansfield.....	5	0	8	600	813	32·00	..	..
Addington (Hares Bnk Pmp Sta)	Croydon Corporation .....	8	1	0	331	813	32·00	215	144
d Addington Hills Reservoir....	Croydon Corporation .....	8	1	0	473	755	29·72	193	137
d Norwood (Auckland Road) ...	Miss J. Cooper .....	5	1	5	230	633	24·94	166	120
d Penge Recreation Ground .....	Lt.-Col. H. W. Longdin ...	5	1	1	122	674	26·55	170	129
4.—THAMES—Wandle. 71 sq. mi.									
d Kingswood (Margery Hall Res.)	W. Vaux Graham, Esq., C.E.	5	1	0	691	846	33·32	181	144
m Woldingham Reservoir .....	W. Vaux Graham, Esq., C.E.	5	1	6	851	851	33·52	..	..
d Woldingham (The Moorlands) .	Mrs. G. A. Anderson .....	5	1	0	750	880	34·64	202	148
Caterham Reservoir .....	A. E. Cornwall-Walker, Esq.	5	1	2	717	967	38·08	208	155
Caterham Valley (Croydon Rd.)	A. M. Worfolk, Esq. ....	5	1	0	430	871	34·27	185	148
d Chipstead (Eyhurst) .....	D. Morphew, Esq. ....	5	1	0	538	942	37·07	199	142
d Caterham Mental Hospital ....	J. Leslie Gordon, Esq. M.D.	5	1	0	607	872	34·34	..	..
d Tadworth (Glade House) .....	W. J. Saunders, Esq. ....	5	1	6	545	889	34·99	192	144
d Chelsham & Woldingham W.W.	W. Vaux Graham, Esq., C.E.	5	1	0	479	853	33·58	178	140
d Warlingham (Council School) .	R. W. Peacock, Esq. ....	5	1	0	600	889	34·99	202	152
Caterham Valley Depot .....	A. E. Cornwall-Walker, Esq.	5	1	6	431	905	35·61	216	156
d Banstead (Burgh Heath) .....	Capt. E. R. Taylor .....	5	1	0	571	923	36·32	190	144
d Banstead (Burgh Heath Res.) .	W. Vaux Graham, Esq., C.E.	5	1	0	570	883	34·76	173	150
Chipstead (The Lodge) .....	F. E. Goad, Esq. ....	5	0	9	525	890	35·03	198	143
d Chipstead (How Green Res.) .	W. Vaux Graham, Esq., C.E.	5	1	0	528	877	34·53	177	138
Kenley Pumping Station .....	A. E. Cornwall-Walker, Esq.	5	1	6	275	807	31·78	209	150
d Banstead Mental Hospital.....	S. J. Wray, Esq. ....	5	5	0	425	778	30·62	172	142
d Purley (Oakwood Avenue) .....	E. W. Finch, Esq. ....	5	1	0	380	773	30·42	194	140
d Purley (Downscourt Rd.) .....	J. Edmund Clark, Esq. ....	5	1	0	360	845	33·28	204	139
Purley (Pumping Station) .....	A. E. Cornwall-Walker, Esq.	5	1	3	225	844	33·24	196	152
d Sanderstead .....	E. Alexander, Esq. ....	5	1	0	370	779	30·69	194	134
d Croydon Aerodrome. .... (+A)	The Meteorological Office..	8	1	0	245	744	29·28	177	123
d South Croydon (Avondale Rd.) .	G. Macdonald Davies, Esq.	5	1	0	195	759	29·89	172	136
Wallington (Alcester Road)....	F. C. Bayard, Esq. ....	5	4	0	144	754	29·67	200	142
Wallington (Alcester Road)....	F. C. Bayard, Esq. ....	8	1	0	141	713	28·06	193	135
d Carshalton (Sewage Works)....	W. Willis Gale, Esq., C.E.	5	1	0	118	705	27·77	164	125
Beddington (Sewage Farm) ....	Croydon Corporation .....	5	1	0	129	635	25·01	182	121
d Croydon (Northampton Road) .	Mrs. Higgins .....	5	1	0	210	725	28·56	179	134
Beddington Cor. (Millgreen Rd.)	Mrs. Miller* .....	5	5	0	77	688	27·10	175	126
Mitcham (Brook Cottage) .....	A. Mizen, Esq.* .....	5	1	0	100	638	25·11	..	..
d Wimbledon (Trinity Road) ....	P. J. Bevan, Esq., C.E. ....	5	1	0	53	651	25·63	169	124
d Wimbledon (Sewage Works)....	J. Bowen, Esq., C.E. ....	5	1	0	55	575	22·62	164	118
5.—THAMES—Mole & c. 229 sq. mi.									
LowfieldHth(HuntsgreenHouse)	late A. E. Robinson, Esq. .	5	0	7	204	1043	41·06	173	135
Horley (Smallfield) .....	W. W. Hughes D'Aeth, Esq.	5	1	0	215	744	29·30	186	136
Outwood (The Orchards) .....	H. Gurney, Esq.* .....	5	1	0	280	841	33·09	193	140
d Dorking (Bramerton).....	Rev. Jas. F. Twist .....	..	1	0	310	933	36·75	197	142
Dorking (Denbies).....	Mr. J. Ansell .....	5	0	9	610	951	37·43	205	..
d Brockham (North Lodge) .....	H. R. Kempe, Esq., C.E....	8	0	9	160	869	34·20	182	128
d Reigate (Hartswood) .....	R. W. Clutton, Esq. ....	5	1	0	174	841	33·10	191	135
South Nutfield (Hale Edge) .....	R. C. Grant, Esq. ....	5	1	0	250	783	30·82	189	146

\* Per Croydon Natural History and Scientific Society.

## DIVISION II.—SOUTH-EASTERN COUNTIES—(con.).

STATIONS.	AUTHORITIES.	Rain Gauge.				Depth of Rain.		Days with ·01 in. or more.	Days with ·04 in. or more.
		Diam.	Height Ground	above Sea Level.	1923				
SURREY—(con.).		in.	ft.	in.	ft.	mm.	in.		
5.—THAMES—Mole & c.—(con.)									
d Barlwood (Sewage Farm) ....	F. T. Clayton, Esq., C.E....	5	1	6	196	807	31·79	182	137
d Redhill (Station Road) .....	W. H. Fowler, Esq. ....	5	18	0	270	832	32·74	197	145
d Redhill (Warwick Road) .....	A. E. Cornwall-Walker, Esq. ....	5	1	6	284	856	33·70	202	151
d Reigate (The Knowle) .....	G. Weston, Esq. ....	5	1	0	390	784	30·86	182	136
d Reigate (Beaufort Road) .....	Herbert Crossfield, Esq. ....	5	0	4	242	851	33·52	191	145
d Reigate (Wray Park Road) ...	W. J. MacAndrew, Esq....	5	1	3	330	855	33·64	185	142
d Reigate (Castle Grounds) .....	F. T. Clayton, Esq., C.E....	5	1	6	350	878	34·58	223	144
d Reigate (Thurso) .....	F. S. Smith, Esq. ....	8	1	0	270	764	30·08	..	..
d Reigate (Northcote) .....	late Mrs F. C. Pawle .....	5	0	8	364	888	34·95	193	156
d Reigate (Laglands) .....	late J. Welch, Esq. ....	5	1	2	375	885	34·83	195	147
d Reigate (Courleigh) .....	T. S. Marriage, Esq. ....	5	0	6	400	819	32·25	175	114
d Nutfield Priory .....	J. Moffatt, Esq. ....	8	1	2	431	835	32·86	223	146
d Bletchingley (South Park Fm.)	Uvedale Lambert, Esq. ....	5	0	4	340	841	33·09	184	145
d Buckland (The White House) ..	J. Herbert Scrutton, Esq....	8	1	6	260	923	36·34	213	152
d Mickleham (Juniper Hall) ....	Miss B. V. MacAndrew ....	5	1	0	183	834	32·84	..	..
d Little Bookham (Longheath)...	C. W. Darley, Esq. ....	5	2	6	180	800	31·50	182	145
d Headley Rectory .....	Rev. T. E. R. Phillips ....	5	1	0	570	891	35·07	200	136
d Headley (The Hurst) .....	Mrs. Lyall .....	5	1	3	420	838	33·00	176	139
d Walton (Walton Manor) .....	Mr. J. Millichamp .....	5	1	0	600	881	34·70	197	144
d Ashted (The Hut) .....	Mrs. Maples* .....	5	0	5	200	755	29·72	160	124
d Banstead (The Hall) .....	Mrs. Maitland* .....	8	1	0	480	893	35·14	158	135
d Epsom (The Durdans) .....	J. Barclay, Esq. ....	8	0	11	224	858	33·77	198	140
d Epsom (Hylands Road) .....	F. H. Holroyd, Esq. ....	5	1	0	225	769	30·27	184	130
d Epsom (Sewage Farm) .....	E. R. Capon, Esq. C.E....	8	1	0	121	699	27·51	173	125
d Whiteley Village (Fox Oak) ...	H. E. Cooke, Esq. ....	8	3	4	195	642	25·27	186	119
d Cobham (Sandroyd Sch.) .....	C. St. John Shortt, Esq....	5	1	1	100	705	27·77	..	..
d Cobham (Fairmile Hatch) .....	Col. Geo. H. Trollope ....	5	1	0	165	737	29·01	..	126
d Weybridge (St. George's Hill)	Mrs. Buckley .....	5	0	10	200	598	23·56	..	..
d Weybridge (Gower Road) .....	Miss J. A. Sanger .....	5	0	7	117	702	27·63	181	134
d Sutton (Camborne Road) .....	F. E. Wright, Esq. ....	5	1	0	250	781	30·75	176	132
d Claygate (Hertslets) .....	N. C. Armitage, Esq. ....	5	1	0	106	674	26·55	212	132
d Esher (Sewage Works) .....	H. C. Fread, Esq.* .....	5	1	0	42	591	23·26	158	114
d Sutton (Water Works) .....	W. Vaux Graham, Esq. C.E.	5	1	6	166	687	27·05	168	129
d Sutton (Sewage Works) .....	W. H. Grieves, Esq., C.E.	8	1	0	94	800	31·49	160	142
d Surbiton (Worthington Road)	W. Stephens, Esq. ....	5	1	0	82	782	30·80	182	146
d Surbiton (Seething Wells) .....	Met. Water Board .....	5	0	10	34	668	26·30	171	120
d Thames Ditton Vicarage .....	Rev. B. H. Bosanquet† .....	..	..	..	..	685	26·98	..	..
d West Molesey (Walton Works)	Met. Water Board .....	5	0	6	35	649	25·54	170	126
d Norbiton (Wolverton Avenue)	Dr. W. H. Kesteven ....	5	1	0	50	762	30·00	188	138
d New Malden (Sewage Works) ..	R. H. Jeffes, Esq. ....	5	1	0	48	648	25·51	..	..
d Kingston (County Hall) .....	H. Wilson, Esq. ....	5	0	9	31	687	27·06	180	136
d Kingston Sewage Works .....	P. G. Lloyd, Esq. ....	5	1	0	25	705	27·77	176	122
d Merton Park (Mostyn Road) ...	J. F. Caley, Esq. ....	5	1	1	..	628	24·73	173	119
d Raynes Pk (Cottenham Pk P.S.)	J. Bowen Esq., C.E. ....	5	1	2	50	613	24·15	161	112
d Wimbledon (The Downs) .....	Sir Francis Fox* .....	5	1	0	162	633	24·94	191	129
d Wimbledon (Eagle House) ....	Sir T. G. Jackson, Bart., R.A.	5	1	6	177	657	25·87	168	129
d Richmond (The Terrace) .....	J. H. Brierley, Esq.* .....	8	1	6	109	649	25·55	162	126
d Richmond (Kew Observatory) (†A)	The Meteorological Office	8	1	0	18	638	25·12	168	125
d Kew (Royal Botanic Gardens)...	Dr. Arthur Hill, F.R.S. ....	8	0	9	..	619	24·38	156	124
d Barnes (Barn Elms) .....	Met. Water Board .....	5	1	0	..	638	25·12	163	133
6.—THAMES—Wey. 236 sq. mi.									
d Haslemere (U.D.C. Depot) ....	A. G. Whitche, Esq. ....	5	1	0	475	929	36·57	198	143
d Haslemere (Frensham Hall Farm)	H. Windibank, Esq. ....	5	1	6	550	981	38·64	199	149
d Haslemere (Frensham Hall Farm)	H. Windibank, Esq. ....	5	1	6	600	930	36·60	185	141
d Haslemere (Hazelhurst) .....	Mrs. T. P. Newman .....	5	1	0	550	996	39·23	192	154
d Haslemere (Furnace Place) ..	F. J. Barlow, Esq.† .....	..	..	..	..	942	37·07	..	..

\* Per Croydon Natural History and Scientific Society.

† Per "Surrey Advertiser."

## DIVISION II.—SOUTH-EASTERN COUNTIES—(con.).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain.		Days with ·01 in. or more.	Days with ·04 in. or more.	
		Diam.	Height Ground	above Sea Level.	1923				
SURREY—(con.).		in.	ft.	in.	ft.	mm.	in.		
6.—THAMES—Wey.—(con.).									
D Oakwood Hill (Honeywood Ho)	The Lady Tredegar.....	5	1	0	280	842	33·16	199	146
D Witley (King Edward's School)	J. Wood, Esq. ....	5	1	3	330	891	35·10	180	138
D Witley (Great Roke)	C. W. Dixon, Esq. ....	5	5	6	300	825	32·46	180	130
D Witley (Enton Hall)	Major Spencer F. Chichester* ..	..	..	..	..	903	35·56	..	..
D Churt	Rt. Hon. David Lloyd George ..	..	..	..	..	864	34·02	166	133
D Churt (Furze Hills)	Rev. C. G. O. Bond .....	5	0	10	390	870	34·26	188	139
D Hascombe Place	C. T. Musgrave, Esq. ....	5	1	0	390	886	34·87	181	139
D Cranleigh (Homefield Cottage)	W. S. Savel, Esq. C.B. ....	5	1	9	182	832	32·75	189	143
D Cranleigh (Ruffold)	Mrs. Gray† .....	..	..	..	..	869	34·20	..	..
D Thursley (C.E. School)	H. Swallow, Esq. ....	5	1	0	300	806	31·74	..	..
D Ewhurst (Coneyhurst)	Mr. J. Russell .....	8	1	0	581	966	38·03	195	141
D Ewhurst (Woolpit)	Mr. W. Harrison .....	5	1	6	600	915	36·04	..	..
D Godalming (Milford House)	Capt. F. D. Webb .....	5	1	0	304	820	32·29	..	..
D Godalming (Milford C.E. School)	A. E. Cooper, Esq. ....	..	..	..	..	811	31·94	..	..
D Godalming (Munstead Heath)	A. M. P. H. Hodsole, Esq.† ..	..	..	..	..	737	29·00	194	..
D Godalming (Charterhouse)	O. H. Latter, Esq. ....	5	1	0	130	790	31·10	188	132
D Peaslake (Dewdney)	Sir F. G. Ogilvie, C.F. ....	5	1	0	532	879	34·61	..	..
D Bramley (The Limes)	Rev. C. J. Etty .....	5	1	0	136	863	33·99	178	144
D Compton (Sandy Knowe Gdns)	Mr. F. Houghton† .....	..	..	..	..	761	29·94	..	..
D Compton (Prior's Wood)	Mr. N. Graham .....	..	..	..	..	777	30·57	..	..
D Shere (Manor House)	R. A. Bray, Esq. ....	5	1	0	330	845	33·26	194	137
D Shere (The Rectory)	Rev. Sir P. M. Bowman, Bt.* 5	1	0	255	863	33·97	185	142	..
D Albury (Dalton Hill Gardens)	Mr. J. Tidy† .....	..	..	..	..	834	32·83	..	..
D Gomshall (Hazelhatch)	Hon. Margaret Wyndham ..	5	1	0	377	841	33·11	172	141
D Abinger Hall	Lord Farrer* .....	8	2	0	320	990	38·97	192	146
D Abinger (West Hackhurst)	Miss L. M. Forster .....	5	0	8	350	869	34·20	..	139
D Farnham (Crooksbury Ridges)	F. R. Walters, Esq., M.D. ..	5	1	4	440	785	30·92	216	128
D Farnham (Short Heath Lodge)	Col. G. Chrystie .....	5	1	0	365	771	30·37	201	137
D Farnham (Bourne Corner)	Miss I. M. Deedes .....	5	1	0	357	810	31·88	181	144
D Puttenham (Berthorpe)	Capt. E. H. Tuckwell ....	5	1	0	350	788	31·03	160	120
D Guildford (Pilgrim Wood)	H. A. Powell, Esq., M.D. ..	5	1	0	330	774	30·49	161	132
D Guildford (Briarfield)	Miss M. E. Swaine .....	5	2	3	300	784	30·86	184	133
D Guildford (West Mount)	C.M. Powell, Esq. ....	5	1	0	200	783	30·83	173	129
D Guildford (Roy. Gram. School)	H. N. Weller, Esq. ....	5	1	0	150	763	30·04	..	..
D Guildford (Cross Lanes)	F. F. Smallpeice, Esq. ....	5	0	8	200	777	30·58	182	135
D Guildford (Abbotswood)	Elliott Kitchener, Esq. ....	..	..	..	150	772	30·41	..	..
D E. Horsley (Rowbarns Grange)	D. W. Sissons, Esq. ....	5	1	7	335	852	33·53	163	136
D Worplesdon Hill (Pinewood)	G. W. Hayes, Esq. ....	5	1	4	180	695	27·36	168	122
D Worplesdon (Openwood)	D. H. Welch, Esq. ....	5	0	8	190	722	28·42	156	115
D Worplesdon (Golf Club)	H. Croxall, Esq. ....	5	1	6	168	657	25·88	..	..
D Send (Sendholme)	A. H. Lancaster, Esq. ....	..	..	..	..	713	28·09	..	..
D Ripley (Ripley Court)	Mrs. Pearce .....	5	1	5	86	709	27·92	168	129
D Ockham (Ockham School)	H. Titmouss, Esq.† .....	..	..	..	100	693	27·29	..	..
D Mayford (Stony Yarrows)	A. R. Ricardo, Esq. ....	5	1	6	140	685	26·97	154	..
D Mayford House Gdns.	Mr. A. Weller† .....	..	..	..	..	720	28·34	..	..
D Woking (Hook Heath)	W. S. Patterson, Esq. ....	5	1	0	160	703	27·67	158	120
D Woking (Northwood)	S. Price-Williams, Esq., C.E. 5	1	4	114	666	26·22	..	115	..
D Woking (The Green)	Mrs. Howlett .....	5	0	9	122	692	27·23	165	125
D Pyrford (Kelmash)	H. D. Richardson, Esq. ..	5	1	0	100	705	27·75	180	128
D Horsell (The Vicarage)	Rev. Norman Pares .....	5	1	9	140	690	27·18	170	132
D Horsell (Inglewood)	Vernon B. Longhurst, Esq. 5	1	0	115	710	27·97	192	121	..
D Wisley (R.H.S. Gardens)	W. D. Cartwright, Esq. ....	8	1	0	150	699	27·53	198	126
D Byfleet (West Hall Gardens)	Mr. G. Carpenter .....	5	1	0	61	706	27·81	..	125
D West Byfleet (Kilmeena)	F. Littleboy, Esq. ....	5	1	0	100	699	27·54	177	124
D West Byfleet (Starcross)	Walter W. Way, Esq. ....	5	1	0	110	715	28·17	175	132
D Weybridge (St. George's Hill)	H. I. Bond, Esq. ....	5	0	8	115	611	24·06	179	125
D Weybridge (Heath Field)	Miss A. T. Gardiner .....	5	1	0	100	674	26·55	179	131
D Weybridge (West Oaks)	A. Whittet, Esq. ....	5	1	0	36	625	24·61	180	116

\* Per Croydon Natural History and Scientific Society.

† Per "Surrey Advertiser."

## DIVISION II.—SOUTH-EASTERN COUNTIES—(con.).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain.		Days with .01 in. or more.	Days with .04 in. or more.	
		Diam.	Height above Ground	Sea Level.	1923				
SURREY—(con.).		in.	ft.	in.	ft.	mm.	in.		
7.—THAMES—Bourne. 55 sq. mi.									
D Knap Hill (Ulundi).....	G. C. H. Simmonds, Esq....	5	1	0	181	715	28.13	160	118
D Knap Hill (Lynbrook).....	Charles Wigan, Esq. ....	5	1	8	200	683	26.88	175	114
D Knap Hill (High Street).....	W. H. Cullis, Esq.....	5	1	0	198	669	26.35	151	116
D Chobham (Sandpit Hall).....	K. A. H. Power, Esq. ....	5	1	0	100	693	27.29	165	122
D Chobham (The Manor House).....	F. A. Walter, Esq. ....	5	1	0	150	737	29.02	187	133
D Windlesham (Windlesham Ho.)	Miss G. Cochrane .....	5	0	9	180	831	32.73	191	138
D Chertsey (Ottershaw).....	Mrs. R. H. Otter .....	5	1	0	200	752	29.59	206	135
D Chertsey (Botleys Park).....	Mr. H. Whitmarsh .....	5	1	5	111	693	27.27	169	125
D Upper Childown (Long Cross Ho)	Miss C. M. Leycester-Penrhyn	5	1	0	200	743	29.27	195	132
D Virginia Water (S. Ann's Heath)	Rev. J. Peck .....	8	1	1	120	666	26.23	184	130
D Englefield Green (Queenswood)	S. J. Rigden, Esq.....	8	1	0	200	762	30.01	189	132
8.—THAMES—Loddon. 17 sq. mi.									
Frimley Green (Corry Hill) ...	Miss D. E. Bailey .....	5	1	0	285	709	27.91	..	122
D Frimley Green Waterworks ...	S. G. Weller, Esq.....	5	2	6	220	666	26.23	148	116
D Frimley Green (Ridgemount) ...	C. C. Haviland, Esq. ....	5	0	9	350	785	30.90	213	134
D Camberley (Way's End).....	E. Ernest Green, Esq. ....	5	0	11	295	733	28.86	176	130
D Camberley (Cordwalles).....	C. H. Ledward, Esq. ....	5	1	6	400	753	29.64	186	132
KENT. (Area, 1532 sq. mi.)									
1.—ROTHER & C. 217 sq. mi.									
D Dungeness .....	The Meteorological Office..	8	1	3	22	708	27.90	169	139
D Lydd (The Paddock).....	Dr. J. A. Proctor.....	5	5	8	10	779	30.66	203	143
D Lydd (Westbroke House).....	A. Finn, Esq. ....	5	1	3	10	694	27.32	..	..
D Brookland (Thrift Farm).....	C. Clark, Esq. ....	12	3	0	11	777	30.58	164	126
D Dymchurch (Hoorne).....	Mrs. Paddock.....	5	1	0	9	661	26.04	164	125
D Snave (Poplar House).....	T. K. Tickner, Esq. ....	8	2	3	10	690	27.18	154	129
D Hawkhurst (Hensill).....	Major F. Ross Thomson...	5	3	0	180	752	29.59	167	128
D Hawkhurst (Pixhall).....	Jesse W. Norris, Esq.....	5	1	3	355	949	37.38	149	144
D Kenardington (The Firs).....	Francis H. Lyon, Esq. ....	5	2	9	65	609	23.97†	168	114
D Tenterden (Summerhill).....	Mrs. Wilkin .....	12	1	0	150	813	32.02	207	149
D Tenterden (Ashenden).....	Major Herbert Neve .....	5	1	0	190	779	30.69	188	138
D Tenterden (View Tower).....	J. Ellis Mace, Esq. ....	8	1	5	190	753	29.64	..	..
D Tenterden (View Tow.)	Snowdn. J. Ellis Mace, Esq. ....	8	1	5	190	736	28.97	194	130
D Tenterden (Dovenden).....	Mrs. Paure .....	8	1	5	200	717	28.23	179	136
D Benenden (National Sanat'm)...	H. Spurrier, Esq., M.B. ....	5	1	0	180	821	32.31	204	136
M Biddenden (Sandpit Wood)...	J. Ellis Mace, Esq. ....	5	1	0	218	765	30.11	..	..
D Hythe .....	W. F. Bickford, Esq., C.E. .	5	1	0	12	739	29.10	192	133
D Hythe (Sandling Park).....	Rt. Hon. L. Hardy, M.P. ....	8	1	0	220	805	31.69	179	150
D Sandgate .....	C. Law Green, Esq., C.E. ....	5	4	0	176	730	28.75	187	140
D Folkestone (Borough Sanat'm)...	A. E. Nichols, Esq., C.E. .	5	1	0	101	715	28.15	174	128
D Folkestone (Cheriton Road)...	B. J. Duncan Walker, Esq. .	5	1	0	160	726	28.60	177	128
D Folkestone (Cherry Gardens)...	H. T. Turner, Esq., C.E. ....	5	1	6	230	775	30.53	178	149
D Capel (Lower Standen).....	H. T. Turner, Esq., C.E. ....	5	2	11	250	777	30.61	..	..
D Dover (Water Works).....	W. B. Smith, Esq., C.E. ....	5	1	6	200	702	27.63	158	129
D Dover (Buckland).....	Guy Mannering, Esq.....	8	1	6	50	783	30.83	168	132
D Kearsney (Chilton Farm).....	W. B. Smith, Esq., C.E. ....	5	1	6	127	858	33.77	168	149
2.—STOUR & C. 386 sq. mi.									
D Lympne Aerodrome .....	(+A) The Meteorological Office..	8	1	0	348	744	29.27	186	133
D Sellindge (Council School).....	S. H. Serpell, Esq. ....	5	1	0	200	780	30.72	176	143
D Lyminge (Elham Valley W.W.)...	Phillip Harris, Esq.,.....	5	1	6	485	762	30.00	193	147
D Ashford .....	B. H. Headley, Esq. ....	5	1	0	190	779	30.66	177	134
D Dover (Martin Mill Pump. Stat.)	F. L. Ball, Esq. ....	5	11	0	298	608	23.92	179	126
D Shepherdswell (Upton Lodge)...	Rutley Mowll, Esq.....	5	..	..	300	828	32.59	183	141
D Palmstead, (Abbotsford).....	H. S. Stevens, Esq.....	5	1	0	440	809	31.85	168	137
D Boughton Aluph (Fairlawn)....	E. Simmons, Esq.....	5	1	3	220	737	29.03	162	140
D Charing Pumping Station.....	F. L. Ball, Esq. ....	5	1	0	295	734	28.89	187	130
M Deal and Walmer W.W. ....	A. Mantle, Esq. ....	12	1	0	110	698	27.49	..	..
D Deal and Walmer W.W. ....	A. Mantle, Esq. ....	5	1	0	110	697	27.45	171	116

† Gauge over-exposed to wind.

## DIVISION II.—SOUTH-EASTERN COUNTIES.—(con).

STATIONS.	AUTHORITIES.	Rain Gauge.				Depth of Rain.		Days with ·01 in. or more.	Days with ·04 in. or more.
		Diam.	Height Ground	above Sea Level.		1923			
KENT—(con.).		in.	ft.	in.	ft.	mm.	in.		
2.—STOUR & C.—(con.).									
d Deal (Wellington Road) .....	R. J. Doyle Pargeter, Esq.	5	1	0	25	636	25·03	149	115
d Deal (Wellington Road) .....	Mrs. J. T. Miller .....	5	1	0	17	668	26·29	175	120
d Great Mongeham Rectory .....	Rev. W. H. Rammell .....	5	1	8	100	677	26·64	169	122
d Sandwich (Upton House, Worth) ..	Capt. W. Elwin Napier ..	5	1	0	32	705	27·77	170	125
d Chilham (Lower Ensden) .....	F. Ivo Neame, Esq. ....	5	3	0	305	659	25·93	..	..
d Wingham (Margate W.W.) .....	Mr. W. R. Hosking .....	5	1	0	138	695	27·38	..	121
d Canterbury (Oaten Hill House) ..	Miss H. M. Carr .....	5	1	3	50	727	28·62	154	132
d Canterbury (Medical Hall) .....	A. Lander, Esq. ....	5	1	0	39	665	26·19	163	121
d Canterbury (London Road) .....	Miss B. Spillett .....	5	0	6	66	706	27·78	179	131
d Canterbury (Irrigation Works) ..	C. Terry, Esq., C.E. ....	5	2	6	15	730	28·74	172	132
d Minster (Gas Works) .....	R. H. Ruthven, Esq. ....	5	1	0	60	598	23·55	..	..
d Ramsgate (Archer House) .....	Miss L. M. Wainwright ...	5	1	0	75	556	21·88	159	119
d Reculver .....	Allington Collard, Esq. ...	5	5	2	27	543	21·36	152	112
d Broadstairs (Domus) .....	Capt. W. B. Marling .....	8	1	0	60	555	21·84	158	122
d Broadstairs (Collis Court Road) ..	A. Watkins, Esq. ....	5	1	0	120	592	23·32	168	129
d St. Peter's .....	H. Hurd, Esq., C.E. ....	5	0	9	140	567	22·33	168	132
d St. Peter's Court .....	A. J. Richardson, Esq. ....	5	1	0	135	564	22·21	168	124
d Birchington (Hollydene) .....	W. Tomlin, Esq., Junr. ....	5	6	0	75	565	22·25	144	121
d Birchington (Rose Bank) .....	Mr. G. Hoare .....	5	5	0	45	579	22·79	139	123
d Margate (Cliftonville) .....	J. W. Gunnis, Esq. ....	8	1	0	120	631	24·86	158	119
d Margate (Cliftonville) .....	C. J. Pemble, Esq. ....	5	1	0	51	513	20·20	155	106
3.—SWALE & C. 167 sq. mi.									
d Selling (Luton) .....	F. Ivo Neame, Esq. ....	5	4	9	263	727	28·63	167	127
d Bicknor Rectory .....	Rev. E. W. Edward .....	5	1	6	517	745	29·34	178	143
d Teynham (Norton Court) .....	A. L. Mercer, Esq. ....	5	1	6	90	731	28·79	..	127
d Teynham (New Gardens) .....	Mrs. Honeyball .....	5	1	5	30	619	24·36	168	116
d Herne Bay (Water Works) .....	J. Roberts, Esq. ....	5	1	0	130	562	22·13	..	..
d Sheppey (Eastchurch, O. Rides) ..	H.C. Warren, Esq. ....	5	2	0	40	564	22·21	..	..
4.—MEDWAY. 506 sq. mi.									
d Bedgebury Park Gardens .....	Mr. H. Arnold .....	5	1	0	280	885	34·84	156	127
d Woodchurch (Hengherst) .....	W. Mitchell, Esq. ....	5	1	0	152	645	25·40	173	133
d Kilndown School .....	J. A. Ager, Esq. ....	5	1	3	365	854	33·63	162	133
d Scotney Castle .....	E. W. Hussey, Esq. ....	5	3	9	203	808	31·80	..	..
d Cranbrook (Camden Lodge) .....	"Kentish Express" .....	5	1	0	276	807	31·76	..	..
d Goudhurst (Lidwells) .....	Rev. H. P. FitzGerald .....	5	1	0	260	800	31·50	203	135
d High Halden (Middle Quarter) ..	Mr. B. H. Budding .....	5	1	0	114	775	30·50	190	133
d Biddenden (Augustus Villa) .....	E. Donne, Esq. ....	5	1	0	175	744	29·28	183	123
d Goudhurst (Gore Court) .....	J. A. Druce, Esq. ....	5	1	0	..	755	29·71	152	127
d Tunbridge Wells (Hawkenbury) ..	D. W. Horner, Esq. ....	5	1	6	435	861	33·90	202	141
d Tunbridge Wells (Sydenhurst) ..	D. W. Horner, Esq. ....	5	1	6	435	891	35·07	232	153
d Tunbridge Wells (Calverley Park) ..	Dr. F. C. Linton .....	5	1	0	356	819	32·25	187	144
d Tun. Wells (The White House) ..	Miss Monica Robins .....	5	1	6	360	848	33·38	179	141
d Speldhurst (Little Court) .....	P. L. Rooper, Esq. ....	8	1	3	350	844	33·23	214	148
d Pembury (The Spring) .....	Miss L. M. Fowler .....	5	1	0	416	881	34·68	206	153
d Pembury Waterworks .....	W. H. Maxwell, Esq., C.E. ..	8	1	8	197	787	30·98	186	135
d Paddock Wood (Matfield Grange) ..	C. A. Perkin, Esq. ....	5	1	0	360	847	33·34	184	137
d Paddock Wood (Matfield) .....	D'Arcy W. Reeve, Esq. ...	5	1	0	321	855	33·64	191	139
d Edenbridge (Falconhurst) .....	Hon. Mrs. John Talbot ...	5	1	6	375	913	35·95	183	156
d Headcorn (Summerhill) .....	E. M. Richford, Esq. ....	5	1	0	100	682	26·85	176	131
d Penshurst Place .....	Lord De L'Isle and Dudley ..	5	1	0	100	845	33·28	196	141
d Penshurst (Parkholt) .....	Mr. J. M. Sturgess .....	5	0	9	265	782	30·78	171	131
d Tonbridge (Mabledon Park) .....	J. F. W. Deacon, Esq. ....	5	1	0	190	788	31·04	182	139
d Tonbridge (Uplands) .....	G. J. Kimmins, Esq. ....	5	0	10	165	791	31·14	185	141
d Tonbridge (Lyons) .....	Dr. E. S. Cardell .....	5	1	0	75	712	28·02	177	129
d Hildenborough (Hollanden Ho.) ..	C. H. Scott, Esq. ....	8	1	0	99	774	30·49	201	142
d Langley (Rumwood Court) .....	Mr. W. J. Gould .....	5	1	9	354	703	27·66	197	141
d Loose Vicarage .....	Rev. W. Gardner Waterman ..	5	..	..	235	764	30·09	..	..
d Nettlestead (Old Quarry) .....	W. Pye-English, Esq. ....	5	3	0	286	684	26·93	173	126
d Otham (Synyards) .....	Ambrose Boyson, Esq. ....	5	1	0	315	750	29·51	205	143
d Wateringbury (The Limes) .....	Alan Lambert, Esq. ....	5	1	0	130	754	29·70	202	138
d Wateringbury .....	J. Garratt, Esq. ....	5	1	6	130	694	27·34	169	127

## DIVISION II.—SOUTH-EASTERN COUNTIES—(con.).

STATIONS	AUTHORITIES.	Rain Gauge.			Depth of Rain.		Days with ·01 in. or more.	Days with ·04 in. or more.
		Diam.	Height Ground	above Sea Level.	1923			
KENT—(con.).		in.	ft. in.	ft.	mm.	in.		
4.—MEDWAY—(con.).								
D Sevenoaks (River Hill) . . . . .	Lt.-Col. J. M. Rogers, D.S.O.	8	2 6	510	758	29·86	196	134
D Maidstone (W. W., Barming) . . . . .	W. J. Ware, Esq., C.E.	5	1 6	250	698	27·48	175	136
D Maidstone (Brenchley Gardens) . . . . .	T. F. Bunting, Esq., C.E.	5	0 9	50	717	28·25	191	143
D Maidstone (Mill Street) . . . . .	T. F. Bunting, Esq., C.E.	8	6 0	38	717	28·21	184	137
D East Malling (Broadwater) . . . . .	C. B. Mercer, Esq.	5	1 6	166	736	28·98	209	139
d East Malling (Blacklands) . . . . .	Major C. E. Tristram	5	1 0	80	693	27·29	177	136
M Maidstone (Allington Lock) . . . . .	Mr. W. Smith	5	1 0	20	727	28·63	..	135
D Detling (The Croft) New . . . . .	R. Cooke, Esq.	5	1 0	330	775	30·50	222	147
M Detling (Pollhill Fields) . . . . .	R. Cooke, Esq.	5	1 0	553	748	29·44	..	..
D Chatham (Woolmans Wood) . . . . .	W. Coles Finch, Esq.	5	3 0	470	686	27·00	167	126
D Halling Pumping Station . . . . .	F. L. Ball, Esq.	5	1 0	75	678	26·70	157	129
D Chatham (Luton W.W.) . . . . .	W. Coles Finch, Esq.	5	3 0	88	642	25·26	162	123
D Rochester (Deanery Gate) . . . . .	Warwick Stunt, Esq.	5	2 0	50	592	23·32	164	116
D Rochester (Knights Place) . . . . .	Miss F. H. Pye	5	3 0	320	679	26·72	174	139
Strood Water Works . . . . .	W. Law, Esq., C.E.	5	3 0	112	617	24·29	168	130
D Frindsbury (Stonehouse Farm) . . . . .	E. W. Wood, Esq.	5	5 0	20	622	24·49	168	127
5.—THAMES—Darent. 256 sq. mi.								
D Westerham (Quebec Square) . . . . .	Met. Water Board	5	1 0	380	912	35·89	203	154
D Westerham Hill Pumping Stat. Met. Water Board . . . . .		5	1 0	539	889	34·99	196	152
M Sevenoaks (Tonbridge Rd Res.) . . . . .	A. Grainger, Esq.	5	1 6	556	811	31·92	..	..
D Sevenoaks (Grammar School) . . . . .	Geoffrey Garrod, Esq.	8	1 0	486	825	32·49	202	145
D Sevenoaks (Speldhurst Close) . . . . .	Rev. D. D. Mackinnon	5	1 0	470	815	32·08	196	143
D Tatsfield (Betsoms Hill) . . . . .	Met. Water Board	5	0 7	820	960	37·79	209	165
Seal (St. Lawrence Reservoir) . . . . .	A. Grainger, Esq.	8	1 0	665	827	32·55	..	..
Seal (Kensing Pumping Stat.) . . . . .	A. Grainger, Esq.	5	1 0	292	803	31·61	..	..
D Sevenoaks (Chevening Gardens) . . . . .	Mr. J. C. Sutton	5	1 0	360	867	34·13	187	148
D Knockholt (Kent Waterworks) . . . . .	Met. Water Board	5	1 0	785	815	32·10	180	147
D Biggin Hill (Aerodrome) . . . . .	The Meteorological Office	8	1 0	605	899	35·41	219	135
D Fairseat (Fairseat House) . . . . .	Col. W. Pitt, C.M.G.	5	1 0	670	811	31·93	179	145
Downe (Petleys) . . . . .	G. N. Murton, Esq.	5	1 0	512	798	31·41	..	125
D Chelsfield (Hewitts) . . . . .	W. A. Waring, Esq.	5	4 0	476	729	28·68	180	135
Keston (Forest Lodge) . . . . .	W. H. Dodgson, Esq.	5	1 0	450	855	33·64	173	141
West Wickham (Wickham Court) . . . . .	Sir H. F. Lennard, Bt.*	5	1 2	300	789	31·08	..	121
D Eynsford Hill . . . . .	Arthur Mee, Esq.	8	1 0	358	643	25·30	161	124
West Wickham (Ingleside) . . . . .	G. B. Kershaw, Esq., C.E.	5	1 0	248	781	30·76	186	130
Hayes (Hayes Place) . . . . .	J. Grandfield, Esq.*	8	1 0	350	796	31·35	192	142
D Orpington (Kent Waterworks) . . . . .	Met. Water Board	5	1 0	220	744	29·29	175	133
D Orpington (Lynwood) . . . . .	W. Jones, Esq.	5	1 4	272	711	27·99	..	..
D Orpington (Brookland) . . . . .	C. H. Bryant, Esq.	5	1 0	207	725	28·55	199	136
Crockenhill (Wested Farm) . . . . .	A. T. Miller, Esq.	5	1 6	331	699	27·53	..	121
d Hartley (The Old Downs) . . . . .	Lt. Col. J. Waley Cohen	5	roof	300	703	27·69	172	136
D Cobham (Sole Street House) . . . . .	J. Scratton, Esq.	5	1 8	311	715	28·14	181	140
D Cobham (Scaler's Hill) . . . . .	A. W. Booth, Esq.	5	1 9	250	720	28·33	166	135
D Bromley Common (Elmfield) . . . . .	Late Rev. J. P. Faunthorpe	5	0 9	240	678	26·69	182	127
d Bickley (Sunnydene) . . . . .	Sir J. Wrench Towse	5	1 0	227	735	28·94	..	..
D Bickley (Farrant's) . . . . .	Late L. E. Chalmers, Esq.	5	1 0	250	749	29·47	173	138
Bromley (High Street) . . . . .	Dr. H. Wynne Thomas	5	1 0	200	707	27·84	..	..
Bromley (Gilbert Road) . . . . .	Edward Kinder, Esq.	5	1 4	200	688	27·09	..	..
d Bromley (Hammilton Road) . . . . .	Rev. F. N. Style	5	1 6	231	695	27·36	..	..
D Bromley Hill (Windermere) . . . . .	Col. E. Satterthwaite, C.B.V.D	5	0 9	200	734	28·91	200	135
D Beckenham (Croydon Road) . . . . .	J. A. Angell, Esq., C.E.	8	1 0	110	787	30·99	202	140
Chislehurst (Hawkwood) . . . . .	Miss M. C. Edlmann*	5	1 0	300	671	26·42	171	126
D Swanley (Horticultural College) . . . . .	Miss H. G. Mitchell	5	0 11	155	595	23·43	178	118
D Southfleet (Kent Waterworks) . . . . .	Met. Water Board	5	1 0	82	579	22·80	157	119
D Wilmington (Kent Waterworks) . . . . .	Met. Water Board	5	1 0	25	558	21·96	150	114
D Dartford (West Hill House) . . . . .	Mr. J. Taylor	5	1 3	100	633	24·91	156	120
D Gravesend (Park House) . . . . .	W. G. Rea, Esq.	5	38 4	78	545	21·46	158	113
D Higham Waterworks . . . . .	C. H. Clark, Esq.	8	1 0	141	665	26·19	185	130
D Grain . . . . .	(+A) The Meteorological Office	8	1 0	10	513	20·18	176	114
D Erith (Crossness) . . . . .	London County Council	14	0 6	16	547	21·52	176	116

\* Per Croydon Natural History and Scientific Society.

## DIVISION II.—SOUTH-EASTERN COUNTIES—(con.).

STATIONS.	AUTHORITIES.	Rain Gauge.				Depth of Rain.		Days with ·01 in. or more.	Days with ·04 in. or more.
		Diam.	Height Ground	above Sea Level.		1923			
SUSSEX (Area, 1458 sq. mi.)		in.	ft.	in.	ft.	mm.	in.		
1.—LAVANT & C. 175 sq. mi.									
D Selsey (Large Acres) . . . . .	Field . . . E. Heron Allen, Esq., F.R.S.	5	1	0	21	813	32·00	192	141
D Bognor (Albert Road) . . . . .	H. L. F. Guernonprez, Esq.	8	1	0	17	795	31·30	178	141
D Colworth (Manor Farm) . . . . .	Harold W. Drewitt, Esq.	5	4	6	18	775	30·50	163	134
D Bognor (Lidsey Lodge) . . . . .	H. Neale, Esq.	8	1	2	25	814	32·06	165	146
D Merston (Abelands) . . . . .	Miss V. Kennard	5	0	6	24	819	32·25	196	141
D Bosham (Cobnor) . . . . .	Major S. W. B. Beale	5	0	6	12	804	31·65	207	145
D Yapton (Drove Farm) . . . . .	W. Harrison, Esq.	5	1	0	14	832	32·74	189	142
D Yapton (Bonhams) . . . . .	W. Harrison, Esq.	5	1	0	24	831	32·70	189	143
D Chichester (Westgate) . . . . .	G. Ashley Tyacke, Esq.	8	0	6	40	862	33·95	196	149
D Chichester (West Street) . . . . .	Dr. Walter Dick	5	1	0	40	841	33·10	192	146
D Chichester (Oakwood House) . . . . .	Mrs. Baring Du Pré	5	0	5	101	913	35·96	162	145
D Chichester (West Broyle Gdns.) . . . . .	T. Weller-Poley, Esq.	5	1	4	107	893	35·14	187	152
D Emsworth (West Bourne) . . . . .	Rev. L. B. Birkett	5	1	0	30	801	31·53	193	147
D Funtington House . . . . .	J. A. Greenwood, Esq.	5	1	0	95	897	35·33	190	146
D West Stoke Rectory . . . . .	Rev. Preb. W. F. Shaw	5	1	0	176	879	34·60	..	134
D Chichester (Goodwood Gardens) . . . . .	Mr. F. Brock	5	1	3	133	963	37·93	211	156
D Emsworth (Watergate House) . . . . .	W. M. Christy, Esq.	5	1	0	222	940	37·00	208	147
D West Dean Park . . . . .	Mr. W. H. Smith	10	1	6	190	1033	40·68	167	154
D Chilgrove House . . . . .	E. L. Woods, Esq.	5	1	0	266	948	37·33	172	134
D Compton (Compton House) . . . . .	Kenneth M. Langdale, Esq.	5	1	0	263	1005	39·56	203	151
D Elsted (Telegraph House) . . . . .	The Earl Russell	5	1	0	625	982	38·67	178	149
2.—ARUN. 285 sq. mi.									
D Littlehampton (Met. Station) . . . . .	C. Thomas Gardner, Esq.	5	1	0	27	765	30·12	169	132
D Patching (Dulaney House) . . . . .	Mr. J. J. Hunt	5	1	0	125	915	36·03	178	153
D Patching Farm . . . . .	Michael Drewitt, Esq.	5	1	0	180	897	35·33	166	138
D Cocking Rectory . . . . .	Mrs. Randall	5	0	9	195	1019	40·12	184	149
D Harting (Down Place) . . . . .	R. G. Blackwell, Esq.	5	1	0	401	1056	41·57	179	147
D Pulborough (Nutbourne Manor) . . . . .	H. M. Baker, Esq.	5	..	..	100	908	35·74	163	149
D Fittleworth Rectory . . . . .	Rev. A. C. Lucey	5	1	2	135	994	39·14	181	156
D Bepton (Fairfield) . . . . .	Major W. A. Chauncy	5	0	8	158	923	36·33	159	134
D Selham (Selham House) . . . . .	C. C. Lacaita, Esq.	5	1	0	115	905	35·63	..	125
D Midhurst (Meadowlea) . . . . .	Gilbert Eames, Esq.	5	1	0	..	863	33·98	169	135
D Stedham (Rotherhill) . . . . .	Late Dr. W. A. Wills	8	0	6	190	963	37·90	191	149
D Midhurst (Hollist) . . . . .	Nigel V. Combe, Esq.	5	0	10	107	929	36·58	155	148
D Petworth Park Gardens . . . . .	Mr. E. W. Pull	5	1	0	182	937	36·88	182	141
D Tillington (River House) . . . . .	Hon. Lady Cunliffe, C.B.E.	5	1	0	230	829	32·65	..	..
D Wisborough Green (Lowfold) . . . . .	B. de F. Osmaston, Esq.	5	2	0	150	783	30·82	152	122
D Midhurst (King Edward VII San.) . . . . .	A. Ward, Esq.	5	1	0	480	813	32·03	..	..
D Linchmere (Borden Wood) . . . . .	Edmund Lamb, Esq.	8	1	0	260	902	35·50	183	141
D Fernhurst (Ashurst) . . . . .	J. G. Ohlenschlager, Esq.	5	1	0	280	875	34·45	184	140
D Fernhurst (Blackdown House) . . . . .	Lady Philipson Stow	5	1	0	550	913	35·94	190	145
D Petworth (Roundwyck) . . . . .	Brig. Gen. C. Lewes, CMG, DSO	5	0	6	105	776	30·56	..	134
D Lower Beeding (The Warren) . . . . .	Leicester M. Reed, Esq.	5	0	10	430	934	36·78	166	144
D Horsham (Christ's Hospital) . . . . .	Major Gabriel Green, M.C.	8	1	3	160	832	32·77	168	132
D Horsham (Savage P.S.) . . . . .	C. G. Atkinson, Esq.	5	1	0	121	821	32·34	188	134
D Horsham (Wimblehurst) . . . . .	Miss E. M. Allcard	5	1	0	195	853	33·57	198	138
D Rusper (The Nunnery) . . . . .	Sir Cecil J. B. Hurst, K.C.B.	5	1	6	260	895	35·24	182	142
3.—ADUR & C. 237 sq. mi.									
D Rottingdean School . . . . .	Mr. T. A. Sandalls	5	1	0	120	946	37·26	183	146
D Rottingdean (Hillside) . . . . .	Vice-Admiral H. J. L. Clarke	5	2	10	30	1026	40·39	170	143
D Worthing (Victoria Park) . . . . .	Dr. R. H. Wilshaw	8	1	0	35	778	30·62	170	134
D East Preston (Bay Trees) . . . . .	Rev. J. B. Orme	5	0	9	25	816	32·14	188	138
D Brighton (Old Steyne) . . . . .	E. H. Barton, Esq.	5	1	0	32	975	38·39	180	153
D Hove (Marine Park) . . . . .	Dr. A. Griffith	8	1	0	41	848	33·39	193	142
D Brighton (Dyke Road) . . . . .	R. A. Penney, Esq.	5	3	10	240	902	35·50	199	143
D Brighton W.W. (Goldstone Bot.) . . . . .	A. B. Cathcart, Esq., C.E.	8	0	7	140	861	33·91	176	146
D Brighton W.W. (Lewes Road) . . . . .	A. B. Cathcart, Esq., C.E.	8	4	9	140	1044	41·10	201	157
D Brighton W.W. (Shoreham) . . . . .	A. B. Cathcart, Esq., C.E.	8	1	9	12	903	35·53	182	150
D Brighton W.W. (Mile Oak) . . . . .	A. B. Cathcart, Esq., C.E.	8	1	3	167	889	34·98	186	142
D Brighton W.W. (Race Hill Res.) . . . . .	A. B. Cathcart, Esq., C.E.	8	1	0	466	1080	42·51	199	157
D Preston Park (Cromer Lodge) . . . . .	P. J. Trouncer, Esq.	8	1	3	96	983	38·69	..	..



## DIVISION II.—SOUTH-EASTERN COUNTIES—(con.).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain.		Days with ·01 in. or more.	Days with ·04 in. or more.	
		Diam.	Height Ground	above Sea Level.	1923				
SUSSEX—(con.).		in.	ft.	in.	ft.	mm.	in.		
3.—ADUR & C.—(con.)									
d Falmer (Brighton W. W.)	A. B. Cathcart, Esq., C.E.	8	1	3	209	1056	41·58	225	150
d Patcham (Brighton W. W.)	A. B. Cathcart, Esq., C.E.	5	1	6	207	900	35·44	203	155
d Bramber (Burletts)	Hatton G. Sugden, Esq.	5	3	6	75	1037	40·81	203	161
d Steyning (The Crescent)	D. Hide, Esq.	5	0	6	87	905	35·62	..	133
d Washington Vicarage	Rev. A. H. S. Pattrick	5	1	0	251	832	32·74	186	139
■ Ditchling (Sillwood House)	Miss Tupper	5	1	0	220	1085	42·72	..	..
■ Hassocks (The Croft)	Harold Taylor, Esq.	5	1	0	200	1057	41·62	..	..
■ Cowfold (Hampsteel)	Miss M. B. Godman	..	..	..	..	881	34·68	..	..
■ Cuckfield (Henmead Hall)	Mrs. Maxwell Campbell	5	3	5	365	1006	39·59	203	144
d Billingshurst (Duncan's Farm)	Miss Edith Beck	5	1	0	130	871	34·28	180	138
4.—OUSE. 224 sq. mi.									
d Seaford (Bowden House School)	J. F. Thomas, Esq.	5	1	0	190	927	36·50	180	146
d Seaford (Newlands)	T. Davys Manning, Esq.	5	1	0	110	821	32·31	171	138
d Newhaven (Poverty Bottom WW)	J. T. Bickford, Esq.	8	1	0	51	971	38·23	179	142
d Lewes (Little Dene)	Mr. F. Down	8	0	11	93	1181	46·51	..	134
d Lewes W. W. (Kingston)	A. Wells, Esq.	8	1	3	13	1155	45·49	226	165
■ East Hoathly (Halland Park)	Mr. R. Shanks*	5	1	0	140	936	36·84	..	..
■ Framfield (High Cross)	Maj. R. L. Thornton, C.B.E.	5	0	6	195	977	38·45	..	..
d Wivelsfield Green	T. D. Evans, Esq.	5	1	0	..	975	38·37	..	137
d Haywards Heath (Gower Road)	Mr. J. E. Shirley	5	3	4	242	913	35·93	215	146
d Haywards H. (Paddockhall Rd.)	L. E. Hervey, Esq.	5	0	6	260	939	36·97	203	146
■ Buxted (Strawberry Hall)	C. Rintoul, Esq.	5	1	0	180	949	37·36	185	..
d Mayfield (Five Ashes)	Miss Emily Aston	5	1	6	300	941	37·06	212	152
■ Oldlands Hall	(R) F. Eckstein, Esq.	8	2	0	400	1123	44·21	196	163
d Ardingly (Lywood House)	G. Forrester Scott, Esq.	5	0	9	240	973	38·30	214	143
d Ardingly (Wakehurst Place)	G. W. E. Loder, Esq.	8	1	3	437	1020	40·16	209	148
d Horsted Keynes (Birchgrove)	Miss G. C. Price-Davies	5	1	0	400	935	36·82	187	134
d Balcombe (The Gables)	Mr. G. J. Warren	8	1	3	358	1042	41·04	207	159
d Balcombe (Stockcroft)	R. Newton, Esq.	5	1	1	341	1049	41·30	196	144
d Balcombe (Waterworks)	F. Martin, Esq., C.E.	8	1	0	471	1044	41·12	..	136
5.—CUCKMERE & C. 189 sq. mi.									
d Eastbourne (West Lodge)	Miss E. K. Beauford	5	1	2	120	999	39·32	200	161
d Eastbourne (Wilmington Sq.)	Dr. W. G. Willoughby	5	1	0	36	910	35·85	195	146
d Eastbourne (Motcombe Gdns) (A)	Major L. Roseveare, C.E.	11	1	7	59	960	37·81	197	155
d Eastbourne (Bakewell Road)	Chas. Harding, Esq.	8	1	0	75	969	38·13	197	162
d Eastbourne (Arundel Road)	Miss Woodd	8	1	6	87	971	38·23	209	160
■ Eastbourne (Arundel Road)	J. C. Wright, Esq.	5	1	0	70	966	38·02	..	..
d West Dean	A. Wilkins, Esq.	8	1	6	112	982	38·66	201	155
d Jevington (Church Farm)	A. Wilkins, Esq.	8	1	6	274	945	37·20	187	170
d Litlington (Plough & Harrow Inn)	A. Wilkins, Esq.	8	1	6	19	1021	40·20	182	152
d Willingdon Sewage Farm	A. C. Matthews, Esq.	5	1	0	24	995	39·17	175	151
d Pevensey Pumping Station	A. C. Matthews, Esq.	5	1	0	12	855	33·64	170	145
d Pevensey Bay (Beach House)	J. H. Anderson, Esq., C.E.	5	1	5	21	798	31·40	178	141
d Pevensey Bay Pumping Station	A. C. Matthews, Esq.	5	1	0	7	813	32·01	171	139
d Hastings (Filsham Reservoir)	P. H. Palmer, Esq., C.E.	5	1	0	36	827	32·56	175	138
d St. Leonards (Gensing Gardens)	W. Ruskin Butterfield, Esq.	8	1	0	179	873	34·35	212	143
d Hailsham (North Street)	R. Matthews, Esq.	5	1	0	105	956	37·65	188	148
d Hurstmonceux Place	H. A. James, Esq.	5	1	8	83	842	33·16	161	144
d Hailsham (Magham Down)	E. M. Bear, Esq.	5	1	0	90	932	36·71	179	149
d Hastings (Newgate)	(R) P. H. Palmer, Esq., C.E.	8	5	6	240	836	32·93	156	125
d Hastings (Halton Reservoir)	P. H. Palmer, Esq., C.E.	5	1	0	301	876	34·48	175	138
d Hastings (Fairlight Reservoir)	P. H. Palmer, Esq., C.E.	5	1	0	523	812	31·98	168	141
d Hastings (Cemetery)	Walter Field, Esq.	5	0	8	478	780	30·71	194	136
d Ninfield (Hazard's Grn Pmp. St.)	C. P. King, Esq.	8	0	10	74	774	30·47	212	137
d Battle (Forewood W.W.)	P. H. Palmer, Esq., C.E.	5	1	0	301	859	33·80	178	138
d Horeham Road (Coxlow)	Miss P. C. Harrison	5	1	0	260	878	34·56	202	141
d Horeham Rd. (Hollycroft Cott.)	J. Hamlin, Esq.	5	1	0	300	969	38·17	196	154
d Heathfield (The White Cottage)	J. F. Leigh Clare, Esq.	5	1	0	500	905	35·61	184	151
■ Heathfield (South Ridge)	P. Lennox Wright, Esq.*	8	2	6	550	988	38·89	189	..

\* Per "Sussex Express."

## DIVISION II.—SOUTH-EASTERN COUNTIES—(con.).

STATIONS.	AUTHORITIES.	Rain Gauge.				Depth of Rain.		Days with ·01 in. or more.	Days with ·04 in. or more.
		Diam.	Height Ground	above Sea Level.		1923			
SUSSEX—(con.).		in.	ft.	in.	ft.	mm.	in.		
<b>6.—ROTHER. 194 sq. mi.</b>									
d Westfield Vicarage .....	Rev. E. J. Morgan .....	5	5	6	101	810	31·89	213	149
d Icklesham Vicarage .....	Rev. Philip Houghton .....	5	0	6	150	770	30·30	179	129
d Winchelsea (Mariteau House) ..	C. W. Campion, Esq. ....	5	1	0	120	860	33·87	196	141
d Winchelsea (Road End) .....	Major R. P. Mair .....	5	1	0	62	852	33·54	..	..
d Brede Pumping Station .....	P. H. Palmer, Esq., C.E. ....	5	1	3	37	852	33·55	172	145
d Udimore (The Wick) .....	Major R. P. Mair .....	8	1	0	92	831	32·71	162	135
d Rye (The Point) .....	W. Gay, Esq. ....	5	0	3	150	865	34·05	182	144
d Rye (Fairfield House) .....	Walter Dawes, Esq. ....	5	1	1	145	764	30·08	162	142
d Brightling (The Cottage) .....	T. W. C. Terry, Esq. ....	5	1	0	130	1001	39·40	190	162
d Beckley (Little Harmers) .....	B. E. de N. Ramus, Esq. ....	5	1	0	150	861	33·88	200	148
d Heathfield (Tottingworth Park)	Mr. J. Masson .....	5	1	0	500	994	39·15	185	157
d Northiam (Great Dixter) .....	Nathaniel Lloyd, Esq., OBE	8	1	0	210	922	36·29	180	145
d Hurst Green (Boarzell) .....	Sir F. W. Fison, Bart. ....	8	1	0	271	798	31·40	186	124
<b>7.—MEDWAY. 117 sq. mi.</b>									
d Crowborough (Jarvis Brook) ..	Crowborough Water Co. ..	5	1	0	325	1028	40·46	185	158
d Crowborough (Uckfield Lodge)	Mrs. A. M. Driberg .....	8	1	0	785	1118	44·01	190	164
d Crowborough (Te Whare) .....	Miss Hames .....	5	1	0	796	1124	44·26	224	166
d Crowborough (Smallfield) .....	J. Godfrey, Esq. ....	5	2	0	600	1065	41·94	189	163
d Wadhurst (Lower Cousley Wd)	F. Wilkin, Esq. ....	5	1	0	416	849	33·43	198	139
d Wadhurst (Dewhurst) .....	Miss E. Whitty .....	5	0	11	400	1034	40·72	214	167
d Forest Row (Wych Cross Place)	D. W. Freshfield, Esq., D.C.L.	5	1	0	600	1004	39·54	..	141
d Forest Row (Hindleap Lodge) ..	Mr. A. Adam .....	5	1	6	620	1032	40·64	183	157
d Forest Row (Charwood Farm) ..	A. Hoare, Esq. ....	5	2	0	350	988	38·90	..	160
d Coleman's Hatch (Holly Hill) ..	J. MacAndrew, Esq. ....	5	1	6	352	991	39·02	171	155
d Frant (Henley House) .....	Rev. E. Malden .....	5	1	6	440	919	36·17	200	152
d Frant (Eridge Castle) .....	Mr. A. Wilson .....	5	2	0	400	963	37·92	183	165
d Frant (Highfield) .....	C. M. R. Cleeve, Esq. ....	5	2	3	413	883	34·76	179	149
d Tunbridge Wells (Frant Road)	Alban G. Robins, Esq. ....	5	1	0	430	961	37·85	196	148
d Crawley Down (The Grange) ..	T. H. W. Buckley, Esq. ....	5	0	9	430	949	37·35	194	135
d East Grinstead (Highfields) ..	G. Mason, Esq. ....	5	1	0	400	910	35·82	186	145
d E. Grinstead (Brockhurst Obsy)	F. J. Hanbury, Esq. ....	8	1	0	435	991	39·03	218	150
<b>8.—THAMES—Mole. 27 sq. mi.</b>									
d Turners Hill (Hill House) .....	Miss R. M. Ravenshaw ...	8	1	6	477	1022	40·24	188	163
d Worth (Worth Lodge) .....	C. W. Nix, Esq. ....	5	1	0	340	955	37·60	191	137
d Crawley (The Beeches) .....	N. Longley, Esq. ....	8	1	0	260	958	37·71	174	135
<b>9.—THAMES—Wey. 10 sq. mi.</b>									
d Liphook (Ripsley) .....	W. D. Bosanquet, Esq. ....	5	1	0	401	901	35·46	194	145
HAMPSHIRE. (Area, 1622 sq. mi.)									
<b>1.—ISLE OF WIGHT. 150 sq. mi.</b>									
d Ventnor (Flint Cottage) .....	J. S. Ineson, Esq. ....	5	1	0	99	831	32·73	175	131
d Ventnor (Royal National Hos.) ..	Miss N. G. Abercrombie ...	5	1	0	60	846	33·34	195	134
d Ventnor (Fern Bank) .....	A. W. Jolliffe, Esq. ....	5	1	5	250	911	35·85	188	141
d Shanklin (Pomona Road) .....	E. C. Cooper, Esq., C.E. ...	8	1	0	184	988	38·89	168	132
d Sandown (Free Library) .....	C. E. Gilchrist, Esq. ....	8	1	0	30	967	38·07	203	143
d Brightstone (Pitt Place) .....	A. A. H. Wykeham, Esq. ....	8	1	0	200	1019	40·11	..	123
d The Needles (Golf Club) .....	G. E. Newnham, Esq. ....	5	1	0	350	763	30·04	..	116
d Totland Bay (Aston House) ..	J. Dover, Esq. ....	8	1	0	140	780	30·70	182	126
d Freshwater (Pumping Station)	J. Dover, Esq. ....	8	1	0	10	806	31·72	152	127
d Bembridge (The Grange) .....	Major F. A. Edwards ....	5	0	9	100	847	33·34	168	142
d Newport (The Mall) .....	F. Morey, Esq. ....	5	1	0	48	961	37·85	178	136
d Ryde (New Lodge, S. John's Pk)	Mrs. Dobie .....	5	1	1	147	895	35·23	191	128
d Ryde (Perivale) .....	Major E. C. Murray .....	5	1	3	193	921	36·26	190	128
d Ryde (Buckland Grange) .....	Lt. Col. Sir Hugh Daly ...	5	1	0	90	875	34·45	207	140

## DIVISION II.—SOUTH-EASTERN COUNTIES—(con.).

STATIONS.	AUTHORITIES.	Rain Gauge.				Depth of Rain.		Days with ·01 in. or more.	Days with ·04 in. or more.
		Diam.	Height Ground	above Sea Level.		1923			
HAMPSHIRE—(con.).		in.	ft.	in.	ft.	mm.	in.		
1.—ISLE OF WIGHT—(con.).									
d Ryde (Esplanade Gardens) . . . . .	B. F. Holness, Esq., C.E. . . . .	5	1	9	12	877	34·54	180	138
d Wootton (Fernhill) . . . . .	Major C. G. Brodie, M.C. . . . .	8	0	6	118	849	33·42	175	129
d East Cowes (Spring Hill) . . . . .	G. Shedden, Esq. . . . .	5	1	0	121	792	31·17	169	126
d Cowes W. W. (Broadfields) . . . . .	J. W. Webster, Esq., C.E. . . . .	5	1	0	161	841	33·11	162	129
d Cowes (Upper Moor Green) . . . . .	J. G. K. Day, Esq. . . . .	5	4	0	160	834	32·83	170	134
2.—STOUR. 32 sq. mi.									
Bournemouth (Pleasure Gdns) . . . . .	C. Dales, Esq. . . . .	5	1	0	41	842	33·15	170	130
d Bournemouth (West Cliff) . . . . .	Rev. G. A. Rideout . . . . .	5	1	0	145	859	33·81	200	134
d Bournemouth (Westcliff Road) . . . . .	S. Barker, Esq. . . . .	5	1	0	145	764	30·07	167	122
d Bournemouth (Rodney House) . . . . .	S. Hyla Greves, Esq. . . . .	5	1	0	145	788	31·04	175	128
d Bournemouth (Rodney House) . . . . .	S. Hyla Greves, Esq. . . . .	5	1	0	145	832	32·76	185	133
d Bournemouth (Vale View) . . . . .	C. Dales, Esq. . . . .	5	1	0	145	642	25·28	178	124
d Bournemouth (Derby Road) . . . . .	Mrs. G. Bennett . . . . .	10	2	0	102	752	29·60	159	127
d Bournemouth (Howard Road) . . . . .	E. D. Shawfield, Esq. . . . .	5	0	10	117	800	31·51	170	123
d Christchurch (Heron Court) . . . . .	The Earl of Malmesbury . . . . .	5	1	2	25	863	33·99	177	135
d Ringwood (St. Leonards) . . . . .	S. O. Ferry, Esq. . . . .	5	0	8	60	761	29·95	169	138
3.—EAST AVON & C. 114 sq. mi.									
d Ringwood (Bisterne) . . . . .	Major J. D. Mills . . . . .	8	1	2	45	846	33·29	154	134
d Ringwood (West Mount) . . . . .	R. F. Williams, Esq. . . . .	5	1	0	100	891	35·08	213	132
d Ringwood (Grey Friars) . . . . .	R. W. Christy, Esq. . . . .	5	1	0	50	755	29·71	..	127
d Fordingbridge (Cuckoo Hill) . . . . .	Heywood Sumner, Esq. . . . .	5	1	0	150	891	35·06	199	139
d Fritham (Fritham House) . . . . .	H. H. S. Northcote, Esq. . . . .	5	1	0	399	894	35·20	179	141
d Fordingbridge (Docks) . . . . .	E. W. Poore, Esq. . . . .	8	1	0	140	800	31·50	190	130
d Fordingbridge (Oaklands) . . . . .	S. B. Rake, Esq. . . . .	8	1	0	135	864	34·01	216	135
d Breamore (Hale Park) . . . . .	Mrs. E. Fitzherbert Wright . . . . .	..	..	..	..	799	31·45	192	129
4.—TEST & SOLENT. 551 sq. mi.									
d Milford-on-Sea (Salt Grass) . . . . .	A. C. G. Heygate, Esq. . . . .	5	1	0	6	777	30·61	162	121
d Milford-on-Sea (Milford House) . . . . .	E. L. Agar, Esq. . . . .	5	0	8	40	738	29·04	176	121
d Lymington (The Salterns) . . . . .	P. A. Ouvry, Esq. . . . .	5	1	0	4	745	29·32	165	127
d Lymington (Woodmancote) . . . . .	Major G. M. Harding . . . . .	5	2	0	70	774	30·48	171	126
d Lymington (Wisteria) . . . . .	F. Collins, Esq. . . . .	5	1	0	70	779	30·69	155	124
d New Milton (White Cottage) . . . . .	Rev. W. M. Furneaux, D.D. . . . .	5	0	8	105	748	29·44	175	128
d Boldre (Battramsley Close) . . . . .	Dr. H. A. Des Voeux . . . . .	5	0	7	119	783	30·81	190	125
d Beaulieu (Drokes) . . . . .	Col. D. Mills . . . . .	5	4	0	45	655	25·78	..	..
d Calshot (Seaplane Station) (+A) The Meteorological Office . . . . .	.. . . .	8	0	10	9	650	25·60	173	118
d Burley (Manor House) . . . . .	Col. F. Willan . . . . .	5	1	4	210	791	31·14	..	128
d Fawley (Cadland) . . . . .	Capt. Maldwin Drummond . . . . .	8	4	6	52	867	34·12	169	146
d Hythe (Heathfield, Dibden) . . . . .	Mr. Jesse Reeves . . . . .	5	1	3	131	867	34·14	192	138
d Lyndhurst (Deerhurst) . . . . .	R. Paget, Esq. . . . .	5	1	6	250	868	34·16	170	134
d Lyndhurst (Allum Green) . . . . .	Miss S. R. Fenwick . . . . .	5	0	8	..	844	33·23	165	126
d Hythe (Dibden House) . . . . .	Lt. Col. H. W. Kettlewell . . . . .	5	0	6	85	792	31·19	164	125
d Totton (Shorne Hill) . . . . .	Capt. J. H. W. Rennie . . . . .	5	1	0	130	822	32·37	187	133
d Southampton (East Park) . . . . .	Col. E. M. Jack, R.E. . . . .	8	1	0	66	776	30·58	195	128
d Southampton Common Res. . . . .	E. C. Rodda, Esq., C.E. . . . .	5	1	0	193	786	30·96	..	..
d Cadnam (Copythorne House) . . . . .	N. M. Lawrence, Esq. . . . .	5	3	0	150	871	34·28	210	136
d Romsey (Embley Gardens) . . . . .	J. J. Crosfield, Esq. . . . .	5	1	0	130	864	34·00	171	128
d Romsey (Harefield) . . . . .	Lt. Col. W. Y. Langford . . . . .	5	1	0	120	841	33·10	170	137
d Melchet Court . . . . .	Mr. F. Clipstone . . . . .	5	3	6	200	834	32·85	..	121
d Romsey (Timsbury) . . . . .	E. C. Rodda, Esq., C.E. . . . .	8	1	8	96	821	32·32	184	122
d Horsebridge (Bossington House) . . . . .	Mrs. Mansell-Jones . . . . .	8	0	9	98	802	31·57	165	128
d Ashley (Upper Somborne) . . . . .	Mr. C. Alleway . . . . .	8	1	0	250	845	33·27	171	129
d Broughton . . . . .	W. Steele Tomkins, Esq. . . . .	5	5	0	130	761	29·95	141	122
d Stockbridge (Houghton Lodge) . . . . .	Mr. G. Morris . . . . .	5	1	0	291	823	32·42	160	122
d Crawley (Chilbolton Down) . . . . .	R. Hargreaves, Esq. . . . .	8	1	2	350	850	33·46	173	129
d Micheldever (Stoke Charity) . . . . .	late Rev. C. B. Lloyd . . . . .	5	1	0	221	830	32·69	162	133
d Sutton Scotney (Hunton Grange) . . . . .	Messrs. Chance and Holley . . . . .	5	1	0	225	764	30·07	179	131
d Andover (Sewage Works) . . . . .	C. Jerome, Esq. . . . .	8	0	9	..	771	30·36	162	128
d Andover (Aerodrome) . . . . . (+A) The Meteorological Office . . . . .	.. . . .	8	1	0	296	754	29·68	181	123

## DIVISION II.—SOUTH-EASTERN COUNTIES—(con.).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain.		Days with ·01 in. or more.	Days with ·04 in. or more.	
		Diam.	Height above Ground Sea Level.		1923				
		in.	ft.	in.	ft.	mm.	in.		
HAMPSHIRE—(con.).									
4.—TEST & SOLENT—(con.).									
D Fyfield Rectory .....	Rev. E. K. R. Reynolds...	5	1	3	255	793	31·21	188	131
D Whitchurch (The Yews) .....	C. Echlin Gerahy, Esq. ....	5	1	0	230	796	31·32	198	137
D St. Mary Bourne (Bournside) ..	Prof. C. V. Boys, F.R.S. ....	5	1	0	300	804	31·67	189	135
D St. Mary Bourne (Spring Hill) ..	Rev. H. A. Boys .....	5	1	0	300	800	31·51	182	136
D Worting (Manydown Park) ..(R)	late S. E. Bates, Esq. ....	8	1	8	415	848	33·38	153	131
D Oakley (Malshanger) .....	Mrs. Godfrey Walter .....	5	1	0	400	848	33·38	172	135
Hurstbourne Tarrant (Rookery) ..	R. E. C. Burder, Esq. ....	5	1	0	331	842	33·14	..	..
D Whitchurch (Dunley Manor) ..	Sir Alfred Herbert .....	5	3	10	500	837	32·96	167	134
D Vernham Dean (Rowe House) ..	Mrs. E. H. Gamble .....	5	0	7	620	893	35·17	188	150
5.—ITCHEN & SPITHEAD. 422 sq. mi.									
D Alverstoke (Monckton House) ..	Major J. Blake .....	5	1	3	15	813	32·00	193	138
D Alverstoke (Glencoe) .....	J. G. Thomas, Esq. ....	5	1	3	20	809	31·83	193	135
D Portsmouth (Eastney) .....	A. W. Ward, Esq., C.E. ....	8	0	6	16	704	27·71	156	125
D Portsmouth (Victoria Park) ..	Dr. A. Mearns Fraser .....	5	1	0	15	750	29·54	176	130
D Hayling Island (Richmond Ho.) ..	E. S. McEuen, Esq. ....	5	1	2	16	773	30·42	175	133
D Lee-on-Solent (Edinburgh Ho Sch)	Trevor J. Tatham, Esq. ....	5	1	0	15	735	28·95	168	128
D Titchfield .....	Capt. E. H. Buxton .....	5	0	10	25	725	28·54	175	135
D Fareham (Fareham House) ..	W. S. Stevenson, Esq., M.D. ....	5	1	6	30	737	29·02	152	135
D Fareham (Roche Court) .....	Mrs. H. F. Rawstorne .....	5	1	0	104	782	30·80	193	134
D Havant (Farlington) .....	H. Ashley, Esq., C.E. ....	5	1	0	77	720	28·36	182	127
D Havant (Portsmouth N.W.) ..	H. Ashley, Esq., C.E. ....	5	1	0	25	763	30·04	185	126
Netley (Lake House) .....	Miss Pennington .....	8	1	0	54	795	31·29	192	132
D Cowplain (Forest View) .....	H. C. Pearson, Esq. ....	5	5	0	222	907	35·71	217	149
D Wickham (The Lower House) ..	Mj.-Gen. Sir CH Powell, KCB ..	5	1	4	100	755	29·71	..	127
Southampton (Corporation Whf.) ..	J. A. Crowther, Esq., C.E. ....	5	5	0	10	747	29·41	171	129
Southampton (Portwood) .....	J. A. Crowther, Esq., C.E. ....	5	2	0	10	775	30·50	166	128
D Botley (Fairthorne Manor) ..	Mr. D. F. Lailey .....	8	1	0	70	806	31·73	210	142
D Botley (Brook House) .....	Beckett Powell, Esq. ....	5	3	2	45	809	31·85	..	..
D Botley (Botley Hill) .....	Lady Jenkyns .....	5	1	6	36	775	30·53	200	134
D Botley (Uplands Farm) .....	Mr. Wilmot H. Yates .....	5	1	0	60	778	30·65	187	133
D Curdridge (Beechcroft) .....	Miss L. M. S. Pasley .....	5	1	0	96	763	30·02	183	142
D Curdridge (Kitnocks House) ..	Major C. F. Randolph .....	5	0	6	185	768	30·23	185	139
D Swanmore (Holywell House) ..	Mrs. M. Portal .....	5	1	0	175	830	32·69	187	140
D Soberton (Mislingford) .....	E. T. Hildred, Esq., C.E. ....	5	1	0	136	822	32·37	178	135
M Chalton (Woodcroft) .....	C. J. P. Cave, Esq. ....	5	1	0	230	953	37·52	..	..
D West End (Oaklands) .....	Capt. P. C. Pearson, R.N. ....	5	1	0	45	764	30·09	170	121
D Bishops Waltham (Palace Ho.) ..	A. F. Hardy, Esq. ....	5	1	3	170	735	28·94	170	128
D Bishops Waltham (Swanmore H.) ..	W. H. Myers, Esq. ....	8	1	2	390	1040	40·94	187	145
D Droxford (Uplands) .....	Miss Bridge .....	5	1	0	279	906	35·68	205	144
D Droxford (Fairfield House) ..	H. Hamilton Bridge, Esq. ....	5	0	9	254	901	35·47	197	144
D Droxford (Fir Hill) .....	Cap. Mackenzie-Grieve, R.N. ....	5	3	6	212	900	35·45	192	142
D Eastleigh (Fair Oak School) ..	G. E. Edwards, Esq. ....	5	1	0	120	727	28·62	..	..
D Petersfield (Ditcham Park) ..	C. J. P. Cave, Esq. ....	8	1	0	555	977	38·48	212	148
M Petersfield (Downley) .....	C. J. P. Cave, Esq. ....	5	1	2	374	1021	40·19	..	..
D Fair Oak (Fisher's Pond) .....	G. M. Mathews, Esq. ....	5	1	0	91	749	29·47	156	121
D Otterbourne House .....	E. Christian, Esq. ....	5	1	6	111	795	31·30	184	119
D Otterbourne (W. W., Shawford) ..	E. C. Rodda, Esq., C.E. ....	5	1	0	113	793	31·21	181	122
D Owslebury Vicarage .....	Rev. A. E. Briggs .....	5	1	1	376	815	32·10	203	141
D Westbury House Gardens .....	Col. H. LeRoy Lewis, CB, DSO ..	5	2	10	296	941	37·03	175	136
D Twyford (Pumping Station) ..	E. C. Rodda, Esq., C.E. ....	8	1	9	139	842	33·15	191	127
D Twyford (Mallards Close) .....	G. R. Marsh, Esq. ....	5	1	0	153	800	31·50	163	119
Hursley Park .....	(R) Sir G. A. Cooper, Bart. ....	10	1	6	250	772	30·41	162	123
D West Meon (Westwood) .....	Major G. E. Galbraith .....	5	1	7	470	913	35·95	193	136
Kilmeston Manor .....	Mrs. Heathcote .....	5	4	6	323	907	35·73	..	..
Petersfield (Broadhanger) .....	Mrs. R. M. Caulfeild .....	5	1	0	730	1056	41·59	214	134
D Winchester (East Hill) .....	Mrs. E. Wilde .....	5	1	0	215	756	29·77	173	124
West Tisted Manor .....	Capt. Nelson Zambra .....	5	1	3	600	936	36·84	188	143
Tichborne Rectory .....	Rev. C. H. Conybeare .....	5	1	0	242	861	33·90	..	..
D Ropley Vicarage .....	Rev. H. W. C. Geldart .....	5	0	10	350	826	32·53	185	138
D Ovington Rectory .....	Rev. H. F. LaM. Stowell .....	5	1	0	221	959	37·74	185	138
Ovington (Barley Down) .....	J. Stevens, Esq. ....	12	3	6	300	833	32·81	194	127
D Itchen Abbas (Chilland) .....	W. J. Arnold, Esq. ....	5	1	3	200	794	31·26	170	132

## DIVISION II.—SOUTH-EASTERN COUNTIES—(con.).

STATIONS	AUTHORITIES	Rain Gauge.				Depth of Rain. 1923	Days with ·01 in. or more.	Days with ·04 in. or more.
		Diam.	Height above		Sea Level.			
		in.	ft.	in.	ft.	mm.	in.	
HAMPSHIRE—(con.).								
<b>6.—ARUN. 32 sq. mi.</b>								
M Petersfield (Sunwood).....	C. J. P. Cave, Esq. ....	5	0	10	479	996	39·21	..
D Petersfield (Buriton House)....	L. G. Bonham Carter, Esq. 5	2	0	300	949	37·37	148	133
D Petersfield (Weston) .....	Capt. P. W. Seward .....	5	1	0	330	1028	40·46	175
Petersfield (Monks Barn).....	F. G. Padwick, Esq. ....	8	1	0	300	1049	41·29	183
D Petersfield (Stoner Hill) ..(+A)	C. J. P. Cave, Esq. ....	5	0	9	748	1049	41·30	198
D Liss (Overcombe) .....	Miss Jebb .....	5	1	3	500	885	34·85	203
D Liss (Heathmount) .....	(R) R. A. Bosanquet, Esq. ..	4	0	490	948	37·32	168	141
D Liss (Highfield) .....	J. S. Gamble, Esq., CIE, FRS 5	0	9	325	959	37·74	221	141
D Liss (The Lodge) .....	Ernest Latter, Esq. ....	5	1	3	240	992	39·06	193
D Liss (Berry Grove House) .....	Col. A. de B. V. Paget.....	5	1	1	250	887	34·90	162
D Liss (Kippences) .....	Rev. W. A. H. Thorold.....	5	0	9	250	938	36·94	..
D Liss (Hawkey Hurst).....	T. Clive Davies, Esq. ....	5	0	11	423	1100	43·30	201
D Greatnam (Manor House) .....	F. Coryton, Esq. ....	5	0	7	250	921	36·24	168
D Greatnam (Le Court) .....	Sir Heath Harrison, Bart... 5	0	9	350	976	38·44	190	144
<b>7.—THAMES—Wey. 92 sq. mi.</b>								
D Colmer Rectory.....	Rev. A. C. Hervey .....	5	1	1	560	908	35·76	..
D East Tisted (Rotherfield Park) late	Archibald E. Scott, Esq. 5	1	0	550	1007	39·65	201	144
D Newton Valence Vicarage .....	Rev. A. C. Maclachlan ...	5	1	0	586	953	37·52	209
D Newton Valence Place.....	Rear Adl. E. Jervoise, C.B.E. 8	1	5	615	846	33·30	186	138
D Selborne (The Wakes) .....	Mrs. Bibby.....	5	1	0	400	1004	39·54	200
D Grayshott .....	Mrs. Lyndon .....	5	1	0	661	942	37·10	204
D Bentworth Rectory .....	Lt. Col. W. J. Long, C.M.G. 5	1	0	587	872	34·33	190	140
D Alton (Shalden Manor).....	J. Gathorne Wood, Esq. ... 8	3	0	594	900	35·44	199	142
D Alice Holt Forest .....	Office of Woods .....	8	1	0	264	847	33·34	203
<b>8.—THAMES—Loddon. 164 sq. mi.</b>								
D Upton Grey (Hoddington Ho.)	F. Anderson, Esq. ....	8	1	0	378	971	38·23	186
Aldershot (Sewage Works) ....	Dr. G. W. Routley .....	5	1	0	231	790	31·10	205
D Hook (Nateley Hatch).....	R. C. Mallock, Esq. ....	5	1	0	329	717	28·23	180
D Sherborne St. John Rectory ..	Rev. D. W. Chute .....	5	1	3	267	762	30·00	180
Sherborne St. John.....	Rear-Admiral A. S. Lafoné 5	1	0	260	727	28·63	168	128
D South Farnborough (R.A.E.) (+A)	The Meteorological Office 8	1	0	234	760	29·92	186	126
D Winchfield (Elvetham Park) ..	Mr. T. J. Brownjohn.....	8	1	0	217	782	30·80	201
D Bramley (Street Farm House)...	F. Walkinshaw, Esq. ....	8	1	0	227	762	30·00	181
D Stratfieldsaye Rectory .....	Rev. F. Page-Roberts ....	5	1	0	164	745	29·31	214
D Heckfield (Park Corner) .....	Miss Martineau .....	5	1	2	257	714	28·12	190
<b>9.—THAMES—Kennet. 65 sq. mi.</b>								
Wolverton (Ewhurst Park)....	Mr. H. Beckingham .....	5	2	0	400	765	30·10	145
Highclere (Castle Gardens)....	Mr. A. W. Blake .....	5	1	3	500	1052	41·43	174
D Highclere (Boxhall Cottage)....	D. R. Sharpe, Esq. ....	5	1	0	450	855	33·64	183
BERKSHIRE. (Area, 722 sq. mi.)								
<b>1.—TEST. 2 sq. mi.</b>								
<b>2.—THAMES—Bourne. 15 sq. mi.</b>								
D Ascot (Heatherwood Hospital).	The Medical Superintendent 5	1	0	315	690	27·17	175	122
<b>3.—THAMES—Loddon &amp; c. 162 sq. mi.</b>								
D Finchampstead (Ridgeways)...	T. C. Horsfall, Esq. ....	5	1	0	320	733	28·85	204
D Wellington College .....	E. O. Tancock, Esq. ....	5	1	0	283	795	31·30	195
D Wokingham.....	C. W. Marks, Esq. ....	5	1	0	174	721	28·39	172
D Wokingham (Appin Lodge) ....	Rev. W. N. Blakeney.....	8	0	10	..	731	28·76	..
D Bracknell (Hillside) .....	Mrs. Littlewood .....	5	1	0	207	762	30·01	171
Binfield (Farley Moor) .....	Canon H. Barnett.....	5	0	9	270	712	28·02	153
D Winkfield (Ryemead) .....	Mrs. Aubrey Elliott .....	5	0	10	220	737	29·02	197
D Windsor (Royal Gardens) .....	Mr. A. MacKellar.....	5	1	0	88	721	28·37	197
D Windsor (Bicton) .....	Miss M. G. Cookson.....	8	1	0	88	729	28·69	169
D Maidenhead (The Pagoda).....	H. G. Barker, Esq. ....	..	..	..	..	713	28·05	161

## DIVISION II.—SOUTH-EASTERN COUNTIES—(con.).

STATIONS.	AUTHORITIES.	Rain Gauge.				Depth of Rain.		Days with ·01 in. or more.	Days with ·04 in. or more.
		Diam.	Height Ground	above Sea Level.	1923				
BERKSHIRE—(con.)		in.	ft.	in.	ft.	mm.	in.		
3.—THAMES—Loddon & c.—(con.).									
d Maidenhead (Hall Place) . . . .	Sir G. A. C. East, Bart. . .	8	1	2	275	668	26·30	178	128
d Remenham Hill (Wedmore) . . . .	Lt.-Col. C. D. Burnell, D.S.O. .	5	1	0	300	782	30·77	190	142
d Hambleden Lock . . . . .	Mr. S. J. Bourner . . . . .	5	2	0	120	767	30·21	197	141
Hurley (Temple House) . . . . .	late Mrs. Owen Williams . .	5	1	0	106	764	30·07	197	142
d Bisham Vicarage . . . . .	Rev. W. Farrer . . . . .	5	1	0	100	666	26·22	160	126
4.—THAMES—Kennet & c. 224 sq. mi.									
d Hampstead Marshall (Redhill) . .	Mrs. Lewis . . . . .	5	1	0	400	807	31·78	..	121
Mortimer (Wokefield Park) . . . .	A. Palmer, Esq. . . . .	5	4	0	220	667	26·24	169	125
d Brimpton (Stonehouse) . . . . .	F. Hadden, Esq. . . . .	5	0	7	350	748	29·45	175	131
Kintbury (Wallingtons) . . . . .	A. S. Gladstone, Esq. . . . .	5	1	0	360	871	34·27	..	..
d Newbury (Greenham Common) . . .	H. L. Bowman, Esq., D.Sc. . .	5	1	0	328	794	31·26	177	140
d Newbury (Wash Hill) . . . . .	C. F. B. Marshall, Esq. . .	5	1	0	360	868	34·16	199	137
d Newbury (Andover Road) . . . .	J. H. Spackman, Esq. . . .	5	1	0	329	827	32·55	207	134
d Midgham (The Gables) . . . . .	J. M. Henry, Esq. . . . .	5	1	7	226	774	30·46	194	136
d Ufton Nervet Rectory . . . . .	Rev. A. E. Brisco Owen . .	8	1	0	312	744	29·30	215	143
d Shinfield (University Col. Farm) .	Prof. W. G. Duffield . . . .	5	1	0	201	681	26·80	181	133
d Bucklebury Place . . . . .	Dr. Carl Langer . . . . .	5	1	0	409	685	26·96	159	133
d Beenham House . . . . .	Capt. W. Waring . . . . .	8	2	3	315	709	27·90	160	138
d Hungerford (Levertton Manor) . .	B. Crosbie-Hill, Esq. . . . .	5	0	8	385	757	29·79	179	122
d Reading W. W. (Bath Road) . . .	L. C. Walker, Esq., C.E. . .	5	1	8	218	684	26·94	174	131
d Earley (Elm Road) . . . . .	Comr. W. G. Lingham . . . .	5	1	1	265	707	27·85	196	133
d Reading (Forbury Gardens) . . .	A. G. Parsons, Esq., C.E. . .	5	1	5	145	707	27·82	188	139
d Reading (University College) . .	Prof. W. G. Duffield . . . .	5	1	0	153	707	27·82	184	134
Reading (Alexandra Road) . . . .	W. Haynes, Esq. . . . .	5	1	0	145	716	28·19	178	135
d Lambourn (Clarionville) . . . .	F. Gullett, Esq. . . . .	5	1	0	500	764	30·07	181	141
5.—THAMES—Ock & c. 319 sq. mi.									
d Reading (Englefield) . . . . .	J. H. Benyon, Esq. . . . .	5	1	1	175	700	27·55	180	136
d Frilsham House . . . . .	Mr. W. E. Austen . . . . .	5	1	0	370	704	27·70	170	131
Hampstead Norris . . . . .	John Brown, Esq. . . . .	5	0	6	300	732	28·83	191	147
Farnborough Rectory . . . . .	late Rev. J. B. H. Whitehurst .	5	1	0	713	843	33·17	195	..
d Upton (Manor House) . . . . .	Miss Fry . . . . .	5	1	0	240	657	25·88	191	133
d Uffington Vicarage . . . . .	Rev. E. M. Hadow . . . . .	5	1	0	287	726	28·60	200	136
Steventon (Milton Hill) . . . . .	R. H. Betteridge, Esq. . . .	5	1	6	300	694	27·32	..	..
d Wallingford (St. Leonard's R.) . .	Rev. A. Simmons . . . . .	5	1	0	142	694	27·33	185	128
d Wallingford (Woodlea) . . . . .	G. F. Slade, Esq., M.B.E. . .	5	0	9	200	732	28·82	177	143
Wallingford Castle . . . . .	Miss Hedges . . . . .	5	1	0	175	717	28·23	190	151
d Abbots Wittenham Rectory . . .	Rev. W. F. B. Ward . . . .	5	1	0	190	562	22·11	181	121
d Long Wittenham (Willington) . .	H. J. Hewett, Esq. . . . .	5	1	0	167	682	26·84	173	136
d Abingdon (Twickenham House) . .	G. Saxby, Esq. . . . .	5	10	0	210	598	23·55	154	121
d Abingdon (Sewage Works) . . . .	Raphael V. Hall, Esq., C.E. .	5	0	6	169	592	23·29	..	124
Abingdon (Donnington) . . . . .	R. W. Langford, Esq. . . .	5	1	6	196	662	26·05	196	132
d Abingdon (Northcourt House) . .	M. T. Tatham, Esq. . . . .	5	1	0	190	587	23·12	180	126

## DIVISION III.—SOUTH MIDLAND COUNTIES.

MIDDLESEX. (Area, 232 sq. mi.)

**1.—THAMES—Colne & Brent. 185 sq. mi.**

d Weybridge (Shepperton Lock) . .	R. A. Swarbrick, Esq. . . .	5	1	0	41	591	23·25	137	111
d Shepperton (Charlton Court) . .	Met. Water Board . . . . .	8	1	0	42	669	26·34	165	127
d Hampton . . . . .	Met. Water Board . . . . .	8	1	0	50	637	25·10	170	121
d Hampton (The Manor House) . .	J. Hughes, Esq. . . . .	5	2	3	43	601	23·68	160	108
d Staines Reservoir . . . . .	Met. Water Board . . . . .	5	1	0	50	648	25·51	187	127

## DIVISION III.—SOUTH MIDLAND COUNTIES—(con.).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain. 1923	Days with ·01 in. or more.	Days with ·04 in. or more.
		Diam.	Height Ground	above Sea Level.			
MIDDLESEX—(con.).		in.	ft. in.	ft.	mm.	in.	
1.—THAMES—Colne & Brent—(con.).							
d Twickenham (Sewage Works) . . . F. W. Pearce, Esq., C.E. . . . .	5	1	7	37	686	27·00	172 125
d Hounslow(S.Stephen'sVicarage) Rev. R. Dixon Box . . . . .	5	1	0	67	654	25·75	169 124
d Isleworth (Mandeville House) . . . A. Worsley, Esq. . . . .	8	0	10	30	745	29·33	152 130
d Sipson (Hollycroft) . . . . . Mr. W. J. Mitchell . . . . .	5	1	0	94	660	25·97	150 132
d Chiswick (Ellesmere Road) . . . A. E. Brounger, Esq. . . . .	5	1	1	20	641	25·22	.. ..
d Kew Bridge (Waterworks) . . . . . Met. Water Board . . . . .	5	1	0	36	636	25·05	162 135
d Hanwell (Oaklands Road) . . . . . R. G. Davies, Esq. . . . .	5	1	0	81	672	26·46	177 131
d Ealing (Webster Gardens) . . . . . Mrs. Hugh Baker . . . . .	5	1	6	97	648	25·50	171 130
d Ealing (Longfield Avenue) . . . . . W. R. Hicks, Esq., C.E. . . . .	5	0	9	114	578	22·76	166 124
d Ealing (St. Stephen's Road) . . . H. W. Peal, Esq. . . . .	5	0	10	156	667	26·26	170 129
Hillingdon (Dawley Court) . . . . . Cecil De Salis, Esq. . . . .	8	1	0	100	742	29·21	.. ..
d Ealing (Hanger Hill Reservoir) . . . Met. Water Board . . . . .	5	1	0	206	683	26·91	167 135
d Perivale(NorthernSewageFarm) W. R. Hicks, Esq., C.E. . . . .	5	0	5	56	709	27·92	187 154
d Uxbridge (Frays Lodge) . . . . . J. C. Hibbert, Esq. . . . .	8	1	0	125	745	29·33	188 132
d Willesden Reservoir . . . . . Met. Water Board . . . . .	5	1	0	167	642	25·28	.. ..
d Willesden Green (Strode Road) . . . Miss Lamport . . . . .	5	1	0	150	661	26·01	188 135
d Willesden (Richmond Avenue) . . . W. Godden, Esq. . . . .	5	6	0	176	600	23·62	175 133
d Willesden (Stonebridge Fm.) (R) F. Wilkinson, Esq., C.E. . . . .	10	5	9	100	652	25·68	175 139
d Sudbury (Station Approach) . . . . . L. H. Powers, Esq. . . . .	8	1	0	153	651	25·61	180 122
d Golders Green (Dunstan Road) . . . R. A. Mackenzie, Esq. . . . .	5	1	0	240	689	27·11	186 142
d Highgate (North Hill) . . . . . L. J. Tatham, Esq. . . . .	5	1	0	400	675	26·58	170 132
d Highgate (North Hill Depôt) . . . E. J. Lovegrove, Esq., C.E. . . . .	5	5	4	309	703	27·66	168 125
d Harrow (Oakhurst) . . . . . Hugh Gardner, Esq. . . . .	5	1	0	295	653	25·70	168 126
d Harrow(Bessborough Rd.Depôt)J. P. Bennetts, Esq., C.E. . . . .	5	1	0	215	724	28·52	177 137
d Hendon (Sewage Works) . . . . . (R) A. O. Knight, Esq., C.E. . . . .	6	1	6	153	617	24·27	169 129
d Hendon (Central School) . . . . . J. Burgess, Esq. . . . .	5	1	4	200	744	29·29	185 142
d Wealdstone (Kodak Works) . . . . . J. H. Pledge, Esq. . . . .	5	6	6	198	653	25·69	.. ..
d Wealdstone House . . . . . Miss H. O. E. Cobb . . . . .	5	1	0	236	613	24·15	152 125
d Pinner (West End Lane) . . . . . Mrs. Fowler . . . . .	5	1	6	165	698	27·49	167 130
d Hatch End (Royston Park) . . . . . W. J. Hill, Esq. . . . .	5	2	2	286	764	30·07	.. ..
Northwood (Watford Road) . . . . . E. Preedy, Esq. . . . .	5	1	0	400	711	28·00	175 ..
d Northwood (Haslemere) . . . . . Miss McBean . . . . .	5	1	0	240	761	29·94	.. 122
Northwood (Tandridge) . . . . . Chas. Price, Esq. . . . .	5	1	0	..	700	27·55	.. ..
d Harrow Weald (Hill House) . . . . . A. Crossman, Esq. . . . .	5	3	6	284	689	27·12	182 134
d Mill Hill (Ridgway House) . . . . . Major N. G. Brett-James . . . . .	5	1	0	385	741	29·18	167 133
d Bushey Heath (Highfield) . . . . . W. B. Worthington, Esq., C.E. . . . .	5	1	0	503	706	27·81	174 122
d Barnet (Dyrham Park) . . . . . Mr. H. Juniper . . . . .	5	1	0	310	750	29·53	.. ..
d Potters Bar (Mount Grace) . . . . . Mr. E. W. Halsey . . . . .	5	1	3	375	674	26·53	165 134
2.—THAMES—Lea. 47 sq. mi.							
d Stroud Green (Oakfield Road) . . . E. A. Madge, Esq. . . . .	5	1	0	206	624	24·56	175 127
d Crouch End (Barrington Road) . . . E. J. Lovegrove, Esq., C.E. . . . .	8	3	10	122	707	27·83	188 153
d Harringay (Wightman Road) . . . . . L. R. Bennett, Esq. . . . .	5	1	0	140	618	24·34	177 126
d Tottenham (Drayton Road) . . . . . Medical Officer of Health . . . . .	5	1	3	51	626	24·66	163 128
d Hornsey (High Street) . . . . . Met. Water Board . . . . .	5	1	2	109	663	26·12	182 139
d Muswell Hill (Grand Avenue) . . . . . G. Michael Williams, Esq. . . . .	5	1	0	317	719	28·29	212 140
Muswell Hill (Leaside Avenue) . . . Mrs. Sowerby Wallis . . . . .	5	1	2	315	723	28·46	192 ..
d Muswell Hill (Page's Lane) . . . . . Miss Abethell . . . . .	5	0	8	310	747	29·43	189 145
d Muswell Hill (Sewage Farm) . . . . . E. J. Lovegrove, Esq., C.E. . . . .	8	4	5	214	722	28·42	189 146
Wood Green (Maryland Road) . . . Mr. F. C. Hornsey . . . . .	5	1	0	110	634	24·96	168 136
d Finchley (Victoria Park) . . . . . P. T. Harrison, Esq., C.E. . . . .	5	1	0	272	735	28·93	185 158
d Palmers Gr.(Broomfield Pk.) (+)R. Phillips, Esq., . . . . .	8	1	3	136	632	24·88	162 128
d Edmonton (Latymer School) . . . . . R. Ashworth, Esq. . . . .	5	1	0	70	597	23·51	173 115
d Southgate (The Lawns) . . . . . Dr. A. S. Ransome . . . . .	5	1	0	250	687	27·05	190 147
d Ponders End (Bylock Hall) . . . . . H. E. Freir, Esq. . . . .	5	1	0	50	642	25·28	174 131
d Ponders End Pumping Station . . . Met. Water Board . . . . .	8	1	0	45	593	23·33	166 138
d Enfield (Southbury Road) . . . . . Met. Water Board . . . . .	5	1	0	223	645	25·39	180 137
d Enfield (Public Offices) . . . . . Dr. W. P. Warren . . . . .	8	43	0	143	651	25·65	198 135
d Enfield (Roselands, Turkey St.) E. S. Rashleigh, Esq. . . . .	5	0	7	80	624	24·56	177 126
d Waltham Cross (Sewage Works) . . . J. E. Sharpe, Esq. . . . .	5	0	6	61	585	23·01	.. ..

## DIVISION III.—SOUTH MIDLAND COUNTIES—(con.).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain.		Days with ·01 in. or more.	Days with ·04 in. or more.	
		Diam.	Height Ground	above Sea Level.	1923				
HERTFORDSHIRE. (Area, 635 sq. mi.)		in.	ft.	in.	ft.	mm.	in.		
1.—THAMES—Thame. 10 sq. mi.									
d Tring (Danebury).....	Miss Boyson .....	5	1	0	450	812	31·96	173	143
Tring (Pendley Manor).....	Mrs. J. G. Williams .....	5	2	0	420	669	26·35	182	139
2.—THAMES—Colne & Brent. 199 sq. mi.									
d Northwood (Woodhouse Eaves) Miss S. F. Fox, M.D. ....		5	1	0	400	711	28·00	175	123
d Heronsgate (Sherwood).....	Miss K. Felkin .....	5	0	11	350	721	28·39	..	..
Bushey Heath (California La.) ..	Miss K. Cooper .....	..	0	10	..	722	28·44	..	..
d Rickmansworth (Croxley Green) ..	S. Ingleby Oddie, Esq. ....	5	1	0	262	763	30·06	152	138
d Totteridge (West Lodge) .....	W. H. Newman, Esq. ....	5	1	0	390	726	28·58	178	140
d Barnet (Summerhill).....	F. A. Milne, Esq. ....	5	1	0	400	687	27·04	183	140
d Barnet (Bedford Avenue) .....	Miss Haines .....	5	1	4	350	752	29·59	191	150
d Barnet (Normandy Avenue)...	P. J. Neville, Esq. ....	5	1	0	409	740	29·13	195	149
d Watford (Oxhey Grange) .....	J. Doyle Penrose, Esq. ....	5	1	0	295	728	28·65	173	133
d Watford (Colne Valley W. W.) ..	C. P. Sinclair, Esq. ....	5	1	2	200	705	27·77	179	140
d Watford (London Orphan Sch.) ..	Rev. J. J. Jackson .....	5	1	0	230	856	33·71	174	133
Watford (Cassiobury Pk. Av.) ..	E. A. Robins, Esq. ....	5	1	0	240	691	27·19	..	..
d Watford (Park Road) .....	E. J. Slinn, Esq. ....	5	1	6	257	704	27·73	183	131
d Sarratt (Micklefield Green).....	T. O. Hickman, Esq. ....	5	0	6	380	810	31·89	168	135
d Shenley (Kitwells) .....	T. H. Riches, Esq. ....	5	1	0	420	755	29·72	178	139
d Sarratt (Goldingtons).....	P. Clutterbuck, Esq. ....	5	4	0	384	779	30·68	..	..
d Radlett (Gill's Hill).....	Mrs. Stanton Swire .....	5	1	0	330	711	28·00	183	141
Chipperfield (Little Callipers) ..	A. W. Rivington, Esq. ....	5	1	0	407	707	27·83	..	..
d King's Langley (Langley Rise) ..	T. Goldring, Esq. ....	5	1	0	300	716	28·18	167	131
d Hemel Hempstead (Apsley Mills) ..	Messrs. J. Dickinson & Co. 24	24	1	4	268	774	30·48	210	145
d St. Albans (Co. Mental Hosp.) ..	G. Goodchild, Esq. ....	5	1	0	295	682	26·86	144	120
d St. Albans (County Museum) ..	Mrs. Bullen .....	5	1	0	389	718	28·27	164	136
d Gorhambury .....	Mr. J. Ison .....	5	1	0	423	733	28·84	181	136
d Berkhamsted (Rossway) .....	late Maj. Gen. Sir C. F. Hadden 5	5	1	3	590	750	29·54	209	150
d Berkhamsted (Anglefield) .....	E. T. Browne, Esq. ....	5	1	0	450	835	32·89	182	141
d Berkhamsted Golf Club.....	T. S. Wheeler, Esq. ....	8	1	0	550	799	31·45	186	147
d Northchurch (Lochniel Cottage) ..	Miss L. Constable Curtis ..	5	0	11	300	819	32·23	..	127
d Tring (Cowroast Lock) .....	W. Yates, Esq., C.E. ....	5	3	6	394	779	30·67	175	144
d Childwickbury Gardens .....	Mr. E. J. May .....	8	1	2	416	786	30·95	..	..
d Harpenden (Rothamsted) (+A) ..	Lawes Agricultural Trust ..	8	0	9	420	717	28·23	189	129
3.—THAMES—Lea. 340 sq. mi.									
d Hadley (Hadley Bourne) .....	Mrs. Weber .....	5	1	0	428	762	29·99	189	151
d Cheshunt (Manor House) .....	J. E. Sharpe, Esq. ....	5	1	0	83	582	22·92	181	127
Northaw School .....	C. Steventon, Esq. ....	5	1	0	400	667	26·25	161	126
d Cheshunt Yard .....	Met. Water Board .....	5	1	0	100	594	23·40	171	131
d Cheshunt Park .....	Mr. W. Standerwick .....	5	0	9	209	550	21·64	175	115
d Cheshunt (Darnicle Hill P. Stn.) ..	J. E. Sharpe, Esq. ....	5	1	0	250	673	26·48	192	141
d Essendon Place Gardens .....	Mr. E. Norton .....	5	1	6	365	676	26·62	155	126
d Hoddesdon (High Street) .....	H. F. Hayllar, Esq. ....	5	4	0	120	620	24·40	167	137
d Hoddesdon (Feilde's Weir) .....	Met. Water Board .....	8	3	8	95	577	22·70	169	126
Hatfield (Surveyor's Office) .....	Lt. Col. A. Ernest Prescott 5	5	1	0	270	712	28·04	..	..
d Haileybury College .....	B. M. C. Marshall, Esq. ....	8	1	4	270	620	24·41	178	131
d Hertford (Bayfordbury) .....	H. W. Clinton Baker, Esq. 8	8	1	2	250	605	23·82	184	129
d Stanstead Abbots (Warrax).....	E. H. Barlow, Esq. ....	5	1	2	110	614	24·17	163	130
d Gilston Park .....	Mr. J. A. Cook .....	8	1	0	175	607	23·91	189	127
d Welwyn Garden City .....	Capt. W. E. James, C.E. ..	5	1	0	285	729	28·70	181	133
d Hertford (Sewage Works) .....	Met. Water Board .....	8	1	0	117	612	24·09	180	135
d Ware (Red House) .....	Met. Water Board .....	5	1	0	115	580	22·85	181	126
d Ware (Chadwell Spring) .....	Met. Water Board .....	5	1	0	140	589	23·17	168	130
d Hertford (Chapmore End, Sch.) ..	A. L. Brackey, Esq. ....	5	1	0	210	637	25·08	172	131
d Welwyn (Codicote Lodge) .....	Mr. J. G. Miller .....	5	1	0	340	671	26·43	..	..
d Much Hadham (Boy's School) ..	J. Langsford, Esq. ....	5	3	0	204	533	21·00	168	123
d Much Hadham .....	T. Woodham Mott, Esq. ..	5	1	0	212	571	22·49	163	120
d Bishop Stortford (Twyford Ho.) ..	Laurie Frere, Esq. ....	5	0	8	181	616	24·24	198	129
Watton (Frogmore Hall) .....	Lt. Col. J. B. Gilliatt, D.S.O. 5	5	0	9	250	601	23·64	..	..



## DIVISION III.—SOUTH MIDLAND COUNTIES—(con.).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain.		Days with ·01 in. or more.	Days with ·04 in. or more.	
		Diam. in.	Height Ground ft.	above Sea Level. ft.	1923 mm. in.				
HERTFORDSHIRE—(con.).									
3.—THAMES—Lea—(con.)									
d Standon .....	F. H. Wace, Esq. ....	5	2	0	375	560	22·05	180	123
d Bennington House .....	Miss E. A. Parker .....	5	1	0	407	658	25·90	192	123
d Little Hadham (Hadham Hall) .....	W. Minet, Esq. ....	5	0	10	338	605	23·82	163	131
d Braughing (Hamels Park) ....	Mr. F. A. Akers .....	5	1	0	400	683	26·89	196	139
d Hitchin (Preston) .....	R. de V. Pryor, Esq. ....	8	2	6	484	715	28·16	179	142
d Buntingford (Coles) .....	Mrs. Greg .....	5	1	0	375	605	23·83	160	130
d Weston Park .....	Col. W. M. Pryor, D.S.O. ..	5	0	10	470	654	25·75	157	124
d Furneaux Pelham (The Brewery) ..	G. Warren Bindloss, Esq. ..	5	1	0	300	642	25·26	181	126
d Royston (Therfield Rectory) ..	Rev. H. R. Humphreys ..	5	1	0	513	667	26·27	171	127
4.—OUSE. 86 sq. mi.									
d Offley (School House) .....	C. W. Mears, Esq. ....	5	1	0	526	708	27·88	178	136
d Offley Vicarage .....	Rev. E. P. Gatty .....	5	1	6	525	685	26·97	166	131
d Graveley Rectory .....	Rev. R. E. C. Walker .....	5	0	10	325	711	27·99	183	136
d Hitchin (Newlands) .....	F. Ransom, Esq. ....	5	1	0	271	681	26·81	187	138
d Hitchin (Chiltern Road) .. (+A)	A. Latchmore, Esq. ....	5	1	0	298	629	24·78	173	130
d Hitchin (High Down) .....	Miss E. Pollard .....	5	1	1	421	694	27·34	217	131
d Letchworth (Roxley Ho. William) ..	late Mrs. H. Bendixson ..	5	1	6	375	621	24·43	167	124
d Letchworth (Sewage Farm) ..	A. W. E. Bullmore, Esq., C.E.	5	1	0	214	619	24·38	160	124
d Letchworth (Gernon Road) ..	A. W. Brunt, Esq. ....	5	1	0	280	593	23·34	177	128
d Baldock .....	Dr. Bertram Suggitt .....	5	1	0	210	626	24·63	183	125
d Barley (Dalnyveed) .....	E. M. Cook, Esq. ....	5	1	0	300	609	23·96	159	123
d Ashwell .....	Dr. R. E. H. Woodforde ..	5	1	0	175	600	23·61	155	129
d Royston (Earlshill House) ....	J. Phillips, Esq. ....	8	1	3	225	644	25·35	183	132
BUCKINGHAMSHIRE. (Area, 743 sq. mi.)									
1.—THAMES—Cherwell. 30 sq. mi.									
2.—THAMES—Thame. 158 sq. mi.									
d Towersey Vicarage .....	Rev. H. E. Cooper .....	5	1	0	250	704	27·73	194	138
d Ellesborough (The Springs) ....	J. K. Bateman, Esq. ....	5	1	2	400	775	30·52	..	..
d Little Kimble .....	Dr. L. T. Burra .....	5	0	10	370	746	29·36	..	..
d Cuddington School .....	R. Watson, Esq. ....	5	0	6	292	669	26·33	..	..
d Weston Turville (Yaxley Lodge) ..	Miss Morris .....	5	1	3	352	747	29·39	161	130
d Weston Turville .....	G. Eland, Esq. ....	5	1	0	320	650	25·60?	..	..
d Tring (Bulbourne) .....	W. Yates, Esq., C.E. ....	5	2	3	396	748	29·46	182	139
d Aylesbury (Sewage Works) ..	W. H. Taylor, Esq. ....	5	4	6	251	791	31·15	220	156
d Bierton (Burcott Cottage) ....	Col. W. Plomer .....	8	1	6	280	685	26·97	169	136
d Mentmore Gardens .....	Mr. J. MacGregor .....	5	1	3	400	722	28·42	..	..
3.—THAMES—Wye & c. 129 sq. mi.									
d Eton (Tangier Island) .....	E. A. Stickland, Esq. ....	5	0	6	68	733	28·86	181	134
d Slough (Upton) .....	R. Bentley, Esq. ....	5	2	0	78	703	27·69	201	126
d Taplow (Hitcham Grange) .....	Hon. C. S. Irby .....	5	1	0	175	640	25·21	154	125
d Stoke Poges (Stoke Court) ....	Mr. F. W. Beevers .....	8	1	3	196	692	27·23	..	..
d Henley-on-Thames (Greenlands) ..	Lord Hambleton .....	5	1	0	116	782	30·79	149	131
d Hedsor .....	Lord Boston .....	8	1	0	170	782	30·78	..	..
d Bourne End (The Bourne) .....	A. Morse, Esq. ....	5	1	0	240	714	28·12	143	122
d Marlow (Thames Bank) .....	S. H. Wright, Esq. ....	8	2	0	105	716	28·19	187	134
d High Wycombe (Flackwell Hth.) ..	E. Dickson Park, Esq. ....	5	1	10	365	754	29·69	173	135
d High Wycombe (Easton St.) ..	H. S. Wheeler, Esq. ....	5	0	11	253	828	32·60	202	145
d Penn (Rayners) .....	Mr. E. Peett .....	5	1	6	547	847	33·36	190	145
d Penn (Ashwell Manor) .....	Capt. A. G. Soames .....	5	1	7	550	813	32·02	217	145
d Hampden House .....	Earl of Buckinghamshire ..	5	1	0	695	802	31·59	190	140
4.—THAMES—Colne. 133 sq. mi.									
d Slough (Ditton Park) .....	Capt. F. Creagh-Osborne, C.B.	5	3	0	70	717	28·25	162	131
d Slough (Langley) .....	R. H. Major, Esq. ....	8	0	10	85	691	27·20	160	125
d Gerrards Cross (Bulstrode Gdns) ..	Mr. G. Taylor .....	5	1	3	280	751	29·55	..	..
d Chalfont St. Giles (Roughw'd Pk) ..	Thurston Agelasto, Esq. ..	5	1	0	400	807	31·76	171	141
d Amersham (St. Mary's Sch.) No. 2 ..	W. Garton, Esq. ....	5	1	0	340	815	32·07	181	134
d Amersham (The Plantation) ..	G. Weller, Esq. ....	8	1	0	464	767	30·18	181	135
d Amersham Common (Stanmore) ..	W. Garton, Esq. ....	5	1	0	517	848	33·40	185	137
d Wendover (Mavortorne Manor) ..	Miss I. Fry .....	5	0	9	490	787	31·00	184	128

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain.		Days with ·01 in. or more.	Days with ·04 in. or more.
		Diam.	Height Ground	above Sea Level.	1923			
BUCKINGHAMSHIRE—(con.).								
5.—OUSE. 293 sq. mi.								
Oving House	H. Yates Thompson, Esq.	5	1 0	515	776	30·54	199	148
Swanbourne House School	L. C. Evans, Esq.	5	1 0	411	727	28·64	175	153
Mursley Hall	Lady Beecham	8	1 0	490	719	28·33	209	139
Addington (C. of E. School)	J. H. Webster, Esq.	5	0 7	320	678	26·68	187	129
Great Horwood	W. Weston, Esq.	5	0 9	340	725	28·53	184	138
Stony Stratford (Calverton L.)	Mrs. Hawkins	5	1 8	230	665	26·17	..	..
Wolverton (St. George's Vic.)	Rev. Canon W. L. Harnett	5	1 0	270	658	25·92	196	125
Wolverton (Gables Lodge)	J. Forster, Esq.	5	1 0	264	649	25·53	204	130
Wolverton (Council School)	E. T. Smart, Esq.	5	5 0	263	621	24·44	..	..
Newport Pagnell (The Croft)	F. Littleboy, Esq.	5	1 9	191	664	26·14	210	133
OXFORDSHIRE. (Area, 756 sq. mi.)								
1.—SEVERN—Upper Avon. 10 sq. mi.								
Sibford Ferris (Woolman Cottage)	Joshua Lamb, Esq.	5	1 0	570	791	31·16	192	145
2.—THAMES—Windrush & c. 261 sq. mi.								
Witney (Cokethorpe)	Major H. G. Feilden	5	4 6	230	695	27·38	182	151
Witney (Church Green)	E. S. Fry, Esq.	5	1 0	270	688	27·09	191	142
Charlbury (Cornbury Park)	Mr. B. Campbell	5	1 0	420	843	33·21	..	..
Wootton Rectory	Rev. F. R. Marriott	5	1 0	370	727	28·64	170	141
Lyneham	R. de M. Pratt, Esq.	5	1 7	351	751	29·58	186	139
Glympton Park	(R) Lt.-Col. G. H. Barnett	8	2 6	..	712	28·04	153	138
Chadlington (Langston House)	Lt.-Col. F. W. Schofield, CMG.	5	1 0	430	736	28·97	182	140
Chipping Norton (Bungalow)	T. H. Burbidge, Esq.	5	1 0	700	771	30·35	174	146
3.—THAMES—Cherwell. 250 sq. mi.								
Nuneham Park Gardens	Mr. A. J. Hines	8	3 0	280	650	25·59	169	130
Oxford (Hincksey Pumping Sta.)	J. E. Wilkes, Esq., C.E.	8	1 0	187	622	24·49	187	126
Oxford (Osney Lock)	Thames Conservancy	5	1 6	188	653	25·70	185	136
Oxford (Magdalen College)	J. J. Manley, Esq.	5	1 0	186	641	25·24	182	132
Oxford (Radcliffe Observatory)	late Dr. A. A. Rambaut	8	1 8	210	668	26·29	192	132
Oxford (Northmoor Road)	Miss E. M. Tawney	5	1 0	217	667	26·24	190	136
Headington (Warneford Asy.)	Dr. A. W. Neill	5	1 0	300	615	24·22	171	133
Headington (Charlton Lea)	Mr. L. Dawes	5	1 0	300	708	27·89	177	139
Elshfield (Home Farm)	Miss M. J. Parsons	5	1 0	355	658	25·90	187	136
Middleton Park	The Earl of Jersey	5	2 6	326	702	27·65	186	139
Steeple Aston (The Grange)	Arthur E. Bradshaw, Esq.	8	1 0	400	731	28·79	202	137
Steeple Aston (Hill House)	B. S. Ogle, Esq.	5	0 5	406	731	28·79	197	141
West Adderbury (St. Amand's)	Miss M. M. Bradford	8	1 6	320	741	29·16	..	126
Adderbury (Cross Hill)	G. H. Norris, Esq.	5	1 1	338	678	26·70	189	131
Adderbury (The Rookery)	C. C. Bradford, Esq.	8	1 0	323	738	29·05	183	144
Bodicote House	J. F. Starkey, Esq.	8	1 0	388	715	28·15	184	141
Bodicote (C. of E. School)	A. Ridge, Esq.	5	1 0	391	700	27·55	177	139
Bodicote Vicarage	Rev. H. N. Fowler	5	1 0	390	693	27·27	180	136
Broughton Rectory	Rev. B. W. Bradford	5	1 6	370	740	29·13	181	134
Wroxton	Hon. Mrs. Fitz Gerald	12	1 6	500	721	28·38	192	145
Shenington School Gardens	Rev. A. Blythman	5	1 3	540	951	37·43	210	165
4.—THAMES—Thame & c. 210 sq. mi.								
Caversham (Kidmore End Sch.)	T. F. Higgins, Esq.	5	1 0	330	829	32·64	214	144
Harpshden (Cray)	B. E. Dunbar Kilburn, Esq.	5	1 0	230	717	28·23	178	121
Henley-on-Thames (Hart St.)	A. Edward Hobbs, Esq.	5	1 6	110	721	28·37	168	131
Henley-on-Thames (Greys Lane)	G. Potter, Esq.	5	0 9	123	747	29·39	168	13

## DIVISION III.—SOUTH MIDLAND COUNTIES—(con.).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain.		Days with ·01 in. or more.	Days with ·04 in. or more.	
		Diam.	Height Ground	above Sea Level.	1923				
NORTHAMPTONSHIRE. (Area, 1003 sq. mi.)					in.	ft. in.	ft.	mm.	in.
1.—SEVERN—Upper Avon. 60 sq. mi.									
d Winwick Warren	Col. R. H. Ainsworth	8	1	5	648	733	28·84	211	133
d Naseby Reservoir	T. W. Millner, Esq.	5	1	6	519	705	27·74	242	139
2.—THAMES—Cherwell. 77 sq. mi.									
d King's Sutton (Manor House)	G. Morgan, Esq.*	5	1	0	338	737	29·03	..	134
3.—OUSE. 148 sq. mi.									
d Brackley (Waterworks)	T. A. Staniforth	5	1	2	450	711	28·01	..	..
d Brackley House	Major J. Allen	5	1	0	425	777	30·61	219	154
d Hazelborough Woods	Office of Woods	8	1	0	241	681	26·82	215	143
Towcester (Easton Neston)	J. P. Maitland, Esq.	8	1	0	325	707	27·84	185	138
d Hartwell Vicarage	Rev. C. Ryder-Macnally	5	2	6	410	784	30·87	223	146
d Hargrave Hall	C. K. Murchison, Esq.	5	1	0	273	571	22·46	..	..
4.—NENE. 622 sq. mi.									
d Salcey Forest	Office of Woods	8	1	3	370	644	25·36	194	136
d Blisworth (Crieff House)	A. Westley, Esq.	5	1	0	351	676	26·63	193	138
Blisworth	Dr. D. Jeaffreson	5	1	0	275	662	26·08	185	131
d Blisworth (Grand Junc. Canal)	T. W. Millner, Esq.	5	1	6	300	632	24·88	192	135
Heyford Manor	Brig.-Gen. J. C. Livingstone-Learmonth	5	1	4	250	652	25·68	..	..
d Castle Ashby	A. R. Searle, Esq.*	5	1	4	230	671	26·43	184	136
d Little Houghton House	Christopher Smyth, Esq.	5	2	0	270	657	25·85	184	135
d Northampton (Dallington Av.)	Major C. A. Markham	5	1	0	265	688	27·10	195	143
d Northampton (General Hosp.)	O. Sodden*	5	1	1	259	628	24·74	175	134
d Northampton (Mental Hosp.)	W. R. Budgen, Esq.	8	1	2	398	653	25·71	195	141
d Northampton (Stimpson Avnue)	F. Tomlinson, Esq., C.E.	8	18	0	329	635	24·98	..	127
d Northampton (Cheyne Walk)	R. H. Primavesi, Esq.	5	8	6	240	624	24·56	200	131
d Daventry (Tunnel End)	T. W. Millner, Esq.	5	1	6	394	695	27·36	205	125
d Althorp Park	Mr. C. F. Crump	5	1	3	414	703	27·67	180	133
d Sywell Hall	T. A. Dickson, Esq.	5	1	0	371	671	26·41	183	139
d Pitsford (Sedgebrook)	Major C. A. Markham	5	1	0	311	677	26·66	159	134
d Wellingborough (Swanspool)	R. S. Henshaw, Esq., C.E.	5	1	0	169	629	24·76	189	127
d Wellingborough (Sewage Works)	R. S. Henshaw, Esq., C.E.	5	1	0	139	588	23·15	188	120
d Wellingborough (Castle St.)	J. E. Ekins, Esq.	5	4	6	160	599	23·59	175	122
d Wellingboro' (Bushfield W.W.)	R. S. Henshaw, Esq., C.E.	8	0	11	286	612	24·11	192	129
d Watford Court	Hon. Gertrude Henley*	9	1	2	380	766	30·17	208	138
d Ravensthorpe Reservoir	F. Tomlinson, Esq., C.E.	8	1	0	370	721	28·38	199	136
d Lamport Hall Gardens	Mr. H. Tyrrell	8	1	0	440	729	28·71	178	151
d Kettering W.W. (Cransley)	T. R. Smith, Esq., C.E.	8	0	6	275	663	26·09	192	129
d Kettering (Sewage Works)	T. R. Smith, Esq., C.E.	8	0	11	199	663	26·12	187	141
d Kettering W.W. (Thorpe Malsor)	T. R. Smith, Esq., C.E.	5	0	11	352	682	26·84	218	133
d Kettering W.W. (Clover Hill)	T. R. Smith, Esq., C.E.	5	0	7	344	676	26·61	174	136
Kettering (Warkton)	Mr. R. H. Brett	5	1	3	275	592	23·31	..	..
Rothwell (Loddington)	Mr. J. Oliff	5	1	6	400	688	27·07	..	139
Thrapston (Islip)	G. E. Abbott, Esq.	5	..	..	145	542	21·33	..	..
d Thrapston (Drayton House)	Mr. G. Medcraft	5	1	6	220	613	24·14	152	121
d Tichmarsh Rectory	Rev. A. M. Luckcock*	..	..	..	150	596	23·47	166	130
Desborough Council School	Mr. F. U. Grudgings	5	2	6	400	661	26·01	..	..
d Rothwell (Shotwell Mill)	W. T. Lynam, Esq.	5	1	6	340	663	26·11	175	129
d Barnwell (Lilford Hall)	Mr. F. W. Gallop	5	1	0	..	665	26·20	170	122
Oundle (Milton Road)	J. M. Siddons, Esq., C.E.	5	3	6	131	538	21·17	..	..
d Oundle School	K. Fisher, Esq.	8	1	0	147	535	21·07	180	110
d Bulwick Park	Viscountess Chetwynd.	5	0	11	225	589	23·21	..	111
d Peterborough (Westbourne Ho.)	E. H. Colman, Esq.	8	1	0	35	561	22·10	166	102
d Peterborough (Abbeyfields)	Major J. Shipley Ellis	5	0	9	49	565	22·24	168	116
Wittering (Whitewater)	E. Betts, Esq.	8	3	0	241	657	25·87	..	..
Wittering (Bone Mill)	E. Betts, Esq.	5	3	0	..	619	24·35	..	122
d Eye (Northolm)	S. M. Egar, Esq.	5	1	0	17	539	21·24	172	106
d Eye (Newborough)	R. Williams, Esq.	5	1	0	8	573	22·58	160	111

\* Per Northamptonshire Rainfall Association.

## DIVISION III.—SOUTH MIDLAND COUNTIES—(con.).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain.		Days with ·01 in. or more.	Days with ·04 in. or more.	
		Diam.	Height Ground	above Sea Level.	1923				
NORTHAMPTONSHIRE—(con.).		in.	ft.	in.	ft.	mm.	in.		
5.—WELLAND. 96 sq. mi.									
d Marston Trussell Rectory ..(r) Rev. J. Knight Law	.....	10	2	9	314	631	24·86	187	132
d Market Harboro' (Dingley Hall) Mr. J. Hanson	.....	5	1	6	400	674	26·54	177	127
d Carlton Park Gardens .....	Mr. R. W. Thatcher	5	1	1	400	653	25·71	..	120
d Weston-by-Welland .....	Major N. H. Matthews	5	1	3	230	784	30·88	228	157
d Rockingham Castle Gardens ..	Mr. A. E. Higgott	5	4	0	410	695	27·37	166	130
d Gretton School .....	W. Leeson, Esq.	5	1	6	365	605	23·84	177	127
d Market Deeping (Etton) .....	W. H. A. Court, Esq., C.E.	8	1	0	25	553	21·79	158	109
HUNTINGDONSHIRE. (Area, 366 sq. mi.)									
1.—OUSE. 327 sq. mi.									
Gamlingay (Woodbury H. Gdns) Major Phipps Foster	.....	5	1	0	200	619	24·36	150	130
d St. Neots (Waresley Park).....	Miss Duncombe	5	0	11	190	629	24·78	157	128
d Abbotsley (C.E. School) .....	G. Rattan, Esq.	5	1	0	100	611	24·05	..	..
d Fenstanton (Yewhurst) .....	Capt. F. W. Brooke	5	0	5	40	550	21·64	174	115
d Hemingford Grey (Millview) ...	G. F. Wilson, Esq.	5	1	6	20	555	21·87	146	112
d Brampton (The Lilacs).....	Rev. G. H. Raynor	5	1	0	45	563	22·15	171	115
d Huntingdon (Hinchingsbrke) (r) Mr. W. Prowting	.....	5	2	0	70	606	23·87	168	125
d St. Ives (Slepe House) .....	Dr. W. R. Grove	5	1	0	25	562	22·11	149	114
d Catworth (School House).....	J. H. Annet, Esq.	5	0	9	210	624	24·57	174	129
d St. Ives (Hiam Farm).....	Mr. E. G. Parsons	5	1	1	100	489	19·27	..	95
Whittlesea Mere .....	Major R. G. Clarke, C.E.	8	1	6	10	528	20·79	153	110
2.—NENE. 39 sq. mi.									
BEDFORDSHIRE. (Area, 467 sq. mi.)									
1.—THAMES—Colne. 20 sq. mi.									
d Dunstable(Kensworth Vicarage)Mrs. Litle	.....	5	1	3	585	757	29·79	..	133
Luton (Stockwood) .....	Mrs. E. R. Crawley	5	0	6	539	691	27·20	181	130
2.—THAMES—Lea. 32 sq. mi.									
d Luton (Pumping Station) .....	J. W. Tomlinson, Esq., C.E.	5	1	0	343	721	28·40	193	137
d Luton (Wardown Park).....	J. W. Tomlinson, Esq., C.E.	5	1	0	390	652	25·69	166	129
d Luton (Tennyson Road) .....	Harold F. Smith, Esq.	5	1	1	530	682	26·86	182	132
d Luton (High Town Road) .....	Rev. W. F. Hicks	5	1	0	480	740	29·12	192	141
d Luton (The Downs) .....	G. W. Pryer, Esq.	5	1	0	479	735	28·92	170	140
3.—OUSE. 408 sq. mi.									
d Shillington (Windmill Lodge) ..	Dr. Kilham Roberts	5	1	0	182	666	26·23	160	128
d Shefford (Stondon Manor) .....	R. Long, Esq.	5	1	0	241	634	24·95	146	111
d Woburn (Crawley Mill Farm) ..	A. Blenkinsop, Esq.	8	1	0	292	675	26·56	182	130
d Woburn(Fruit Farm,Ridgmont) E. J. Hobbs, Esq.	.....	5	1	0	270	683	26·91	173	124
d Stotfold(Three Co. Mental Hos.) Dr. L. O. Fuller	.....	9	1	0	220	599	23·58	178	125
d Meppershall .....	K. R. Reynolds, Esq.	5	0	9	235	586	23·06	..	..
d Shefford (Clifton Bury) .....	A. Inskip, Esq.	5	2	1	150	644	25·36	..	..
d Shefford Council School .....	G. F. Alldritt, Esq.	5	1	0	134	673	26·51	199	128
d Shefford (Stanford) .....	H. Inskip, Esq.	5	2	0	60	621	24·47	..	..
Sandy (The Lodge) .....	Mr. R. Pettifer	5	1	0	200	673	26·49	167	..
d Sandy (Beeston Grange) .....	Lt.-Col. Maunsell Bowers	5	1	0	80	575	22·62	168	128
d Bedford (Castle Road) .....	Miss M. E. Newbery	5	7	0	108	593	23·34	169	127
d Goldington (Castle Mills) .....	W. H. Rogers, Esq.	5	1	4	90	586	23·06	..	..
d Great Barford House .....	J. Arnold Whitchurch, Esq.	5	1	0	120	611	24·04	152	118
d Sharnbrook (Castle Close) .....	L. Stileman-Gibbard, Esq.	5	0	8	210	597	23·51	178	128
d Sharnbrook (Colworth Gardens)Mr. J. Hoad	.....	5	2	0	250	585	23·02	153	128
4.—NENE. 7 sq. mi.									

## DIVISION III.—SOUTH MIDLAND COUNTIES—(con.).

STATIONS.	AUTHORITIES.	Rain Gauge.				Depth of Rain.		Days with ·01 in. or more.	Days with ·04 in. or more.
		Diam.	Height Ground	above Sea Level.		1923			
CAMBRIDGESHIRE. (Area, 859 sq. mi.)		in.	ft.	in.	ft.	mm.	in.		
1.—STOUR. 17 sq. ml.									
2.—OUSE. 740 sq. mi.									
d Ashwell (Odsey) .....	Sir Geo. Fordham .....	5	1	0	256	589	23·19	178	117
d Guilden Morden Vicarage .....	Rev. Ll. G. S. Price .....	5	1	0	140	598	23·56	170	118
Abington Pigotts Rectory .....	Rev. M. de Courcy-Ireland.	5	1	0	78	552	21·72	154	114
Melbourn (Melbourn Bury) .....	A. R. Fordham, Esq. ....	5	1	1	90	618	24·34	187	..
d Bartlow (Shudy Camps) .....	Miss M. G. Archer .....	5	0	9	300	602	23·71	164	123
Meldreth (Chiswick Farm) .....	A. Howard, Esq. ....	5	1	1	70	608	23·92	178	121
d Fowlmere (Fruit Farm) .....	H. F. Smith, Esq. ....	5	1	0	66	514	20·22	170	104
d Foxton (The Bury) .....	J. Gifford, Esq. ....	5	1	0	60	591	23·28	189	120
d Whittlesford (Scots) .....	Robert Maynard, Esq. ....	5	0	6	68	657	25·86	..	110
d Harston Vicarage .....	Mrs. E. C. Baldwin .....	5	0	8	47	578	22·76	..	116
Wimpole Hall .....	Mr. W. J. Snell .....	5	1	0	141	539	21·23	147	102
d Shelford (Stapleford House) .....	J. H. H. Linton, Esq. ....	5	2	3	64	597	23·49	158	125
d Balsham Rectory .....	Rev. H. J. E. Burrell .....	5	1	6	399	582	22·90	169	124
d Grantchester Mill .....	J. Nutter, Esq. ....	5	5	0	31	556	21·89	..	112
d Fulbourn (Fleam Dyke) .....	W. W. Gray, Esq., C.E. ....	5	1	5	99	560	22·04	155	116
d Fulbourn Pumping Station .....	W. W. Gray, Esq., C.E. ....	5	1	0	37	617	24·31	193	133
d Cambridge W.W. (Cherryinton) .....	W. W. Gray, Esq., C.E. ....	5	1	0	35	563	22·15	178	114
d Cambridge (Hills Road, South) .....	Smith Nutter, Esq. ....	8	0	10	45	590	23·23	194	128
d Cambridge (Sidney Street) .....	Messrs. W. E. Pain & Sons	8	53	0	83	541	21·29	187	111
d Cambridge (Corporation Store Yd) .....	Julian Julian, Esq., C.E. ....	5	1	0	52	531	20·89	159	111
d Cambridge (Tenison Avenue) .....	W. B. Parsons, Esq. ....	8	1	2	40	596	23·47	165	118
d Cambridge (Botanic Gardens) .....	F. G. Preston, Esq. ....	5	1	0	41	561	22·08	168	116
d Cambridge (Corporation Ppg. St.) .....	Julian Julian, Esq., C.E. ....	5	1	0	28	542	21·35	186	116
d Caxton .....	Dr. E. P. H. Dudley .....	5	1	0	170	613	24·12	153	114
d Boxworth (Manor House) .....	E. H. Thornhill, Esq. ....	5	1	0	76	619	24·36	169	115
d Swaffham Prior Vicarage .....	Rev. L. Fisher .....	5	1	4	44	561	22·07	170	118
d Burwell (Manor House) .....	R. Stephenson, Esq. ....	5	2	0	58	560	22·05	162	118
d Conington (Conington Hall) .....	Philip T. Gardner, Esq. ....	8	0	5	50	705	27·76	152	127
d Cottenham (Bernard House) .....	Miss Bull .....	5	1	6	30	592	23·29	165	121
d Fordham (London House) .....	W. V. Bloom, Esq. ....	5	1	0	30	554	21·82	135	112
d Stretham Engine .....	Mr. J. Housley .....	9	4	9	13	552	21·74	131	104
Stretham (Orchard House) .....	C. Wright, Esq. ....	8	5	0	42	527	20·75	140	..
d Chatteris (Holwood Farm) .....	Mr. J. W. Watson .....	5	1	0	11	512	20·14	115	95
Littleport (Highfield House) .....	H. G. Martin, Esq. ....	8	2	7	67	558	21·98	135	115
d Chatteris (Aylesby House) .....	A. H. Ruston, Esq. ....	8	1	0	31	635	24·98	128	111
d Chatteris (The Priory) .....	H. F. Fryer, Esq. ....	5	1	0	32	551	21·69	111	103
March .....	Major R. G. Clark .....	9	2	0	10	628	24·74	143	126
Upwell (Marmont Priory Lock) .....	Major R. G. Clark .....	8	1	1	..	567	22·34	169	118
d Wisbech (Queen's Road) .....	H. Dann, Esq. ....	5	7	6	10	631	24·86	158	117
3.—NENE. 102 sq. ml.									
Stanground Sluice .....	Major R. G. Clark .....	8	1	6	15	574	22·59	167	117
d Parson Drove (Clows Cross) .....	W. Kingston, Esq. ....	8	3	0	13	506	19·92	163	107
d Wisbech (Bank House) .....	Hon. Anna J. Peckover ..	8	0	8	6	633	24·93	172	118

## DIVISION IV.—EASTERN COUNTIES.

ESSEX. (Area, 1532 sq. mi.)

**1.—THAMES—Lea. 132 sq. mi.**

d West Ham (Abbey Mills) .....	London County Council ..	8	0	10	15	572	22·53	169	130
d Leyton (Town Hall) .....	E. H. Essex, Esq., C.E. ....	5	1	0	22	597	23·50	166	123
d Leytonstone (High Road) .....	Miss G. Lister .....	5	1	8	100	667	26·28	188	132
d Lea Bridge (Waterworks) .....	Met. Water Board .....	8	0	6	23	578	22·75	170	115
d Walthamstow (Ferry Lane) .....	Met. Water Board .....	8	0	10	30	585	23·03	188	129
d Woodford (Haggar Lane) .....	Met. Water Board .....	8	0	8	176	508	20·00	159	117
d Buckhurst Hill Reservoir .....	Met. Water Board .....	8	1	7	275	650	25·59	169	130
d Buckhurst Hill (Ardmore) .....	Miss E. F. Howard .....	8	1	0	270	746	29·37?	168	135

## DIVISION IV.—EASTERN COUNTIES—(con.).

STATIONS.	AUTHORITIES.	Rain Gauge.				Depth of Rain.		Days with ·01 in. or more.	Days with ·04 in. or more.
		Diam.	Height Ground	above Sea Level.		1923			
ESSEX—(con.).		in.	ft.	in.	ft.	mm.	in.		
1.—THAMES—Lea—(con.).									
d Chingford (Crescent Road) . . . . .	Miss M. L. Mathieson . . . . .	5	2	9	200	606	23·85	170	121
d Chingford Mill . . . . .	Met. Water Board . . . . .	8	0	6	40	640	25·18	178	126
d Loughton (High Beech Res.) . . . . .	Met. Water Board . . . . .	8	1	0	376	662	26·08	169	138
d Waltham Abbey (Ramney Marsh) . . . . .	Met. Water Board . . . . .	8	1	0	60	606	23·87	183	133
d Waltham Abbey (Pumping Stn.) . . . . .	Met. Water Board . . . . .	8	1	3	66	617	24·28	178	124
d Waltham Abbey (Gunpr. Fact.) . . . . .	The Superintendent . . . . .	5	2	0	64	556	21·88	177	129
d Hatfield Broad Oak (Barrington) . . . . .	A. H. Gosling, Esq. . . . .	5	0	10	300	624	24·57	190	128
d Bishop Stortford (Hassobury) . . . . .	Major W. S. Gosling . . . . .	5	0	10	290	665	26·20	195	..
d Stansted (Ravens) . . . . .	Col. R. Egerton . . . . .	5	1	0	290	667	26·27	200	139
d Elsenham (Gaunts End) . . . . .	H. Cotterell, Esq. . . . .	5	1	0	363	603	23·76	196	129
d Stansted (Bentfield Place) . . . . .	L. D. Gosling, Esq. . . . .	..	..	..	300	626	24·64	170	129
2.—THAMES—Roding & c. 316 sq. mi.									
d Tilbury (Park View Observatory) . . . . .	S. A. Hill-Willis, Esq., C.E. . . . .	5	1	0	6	561	22·09	..	110
d Grays (Stanley Road) . . . . .	Engineer, U.D.C. . . . .	5	3	3	21	631	24·83	176	129
d Grays Sewage Works . . . . .	L. D. Holgate, Esq. . . . .	8	6	0	9	580	22·83	182	123
d East Ham (Central Park) . . . . .	J. Banks, Esq. . . . .	8	1	0	15	587	23·11	168	126
d East Ham Well . . . . .	Met. Water Board . . . . .	8	1	0	17	529	20·81	166	113
d Ilford Sewage Works . . . . .	J. Sandford, Esq. . . . .	5	1	1	31	593	23·35	155	115
d Leigh-on-Sea (Harley St.) . . . . .	Mrs. Elliot . . . . .	5	0	10	120	548	21·56	186	123
d Leigh (Brick House) . . . . .	Miss Bentall . . . . .	5	..	..	..	491	19·32	..	..
d South Benfleet (Hillside Road) . . . . .	H. A. Marshall, Esq. . . . .	5	1	0	..	529	20·83	156	117
d Vange Pumping Station . . . . .	Southend Water Works Co. . . . .	5	1	0	43	505	19·88	157	116
d Pitsea Pumping Station . . . . .	Southend Water Works Co. . . . .	5	1	0	28	502	19·77	148	109
d Hornchurch . . . . .	W. J. Grant, Esq. . . . .	8	1	8	46	516	20·32	177	116
d Wanstead (Red Bridge) . . . . .	Met. Water Board . . . . .	5	2	0	27	556	21·89	163	122
d Manor Park (Albany Road) . . . . .	A. J. Wilmshurst, Esq. . . . .	5	2	11	40	588	23·14	186	139
d Manor Park (City of Ldn. Cem.) . . . . .	Mr. J. D. Robertson . . . . .	5	0	6	45	549	21·61	..	..
d Havering-atte-Bower (Fernside) . . . . .	Benjamin Smith, Esq. . . . .	5	1	0	341	671	26·41	201	149
d Buckhurst Hill (Princes Road) . . . . .	A. J. Bull, Esq. . . . .	5	1	3	200	647	25·47	169	130
d Epping (The Hemnalls) . . . . .	Miss A. Nicholl . . . . .	8	0	8	345	778	30·64?	147	..
d Ongar (Marden Ash) . . . . .	W. E. Calver, Esq. . . . .	5	1	6	190	543	21·39	169	115
d Ongar (Folyats) . . . . .	J. M. Newall, Esq. . . . .	5	0	10	210	535	21·08	..	..
d North Weald (Canes) . . . . .	H. W. Hart, Esq. . . . .	5	2	0	250	636	25·05	163	130
3.—CROUCH. 186 sq. mi.									
d Shoeburyness (New Ranges) . . . . .	The Meteorological Office . . . . .	5	1	0	11	509	20·04	157	110
d Southend (The Cliffs)* . . . . .	E. J. Elford, Esq. . . . .	8	1	0	90	517	20·37	168	118
d Southend (Lancaster Gardens) . . . . .	H. J. G. Ralph, Esq. . . . .	5	1	0	78	532	20·93	165	118
d Southend (Water Works) . . . . .	Southend Water Works Co. . . . .	8	1	0	112	545	21·47	160	121
d Leigh Reservoirs . . . . .	Southend Water Works Co. . . . .	5	1	0	117	530	20·85	157	119
d Great Wakering . . . . .	The Meteorological Office . . . . .	5	1	0	9	495	19·49	171	111
d Eastwood Pumping Station . . . . .	Southend Water Works Co. . . . .	8	1	0	50	536	21·09	189	120
d Thundersley Reservoir . . . . .	Southend Water Works Co. . . . .	5	1	0	277	520	20·46	..	115
d Nevendon Pumping Station . . . . .	Southend Water Works Co. . . . .	5	1	0	43	525	20·67	144	125
d Billericay (Service Tank) . . . . .	Southend Water Works Co. . . . .	5	1	0	310	571	22·46	159	127
d Billericay (Ramsden Hall) . . . . .	T. W. Bacon, Esq. . . . .	5	0	9	260	598	23·53	188	132
d Wickford (Runwell Hall) . . . . .	Lt.-Col. H. Kemble . . . . .	5	1	0	75	586	23·08	143	108
d Southminster (Dudswell) . . . . .	Mrs. H. G. Owen . . . . .	5	0	10	60	601	23·67	165	130
d Southminster (The New Moor) . . . . .	E. J. Attenborough, Esq. . . . .	..	..	..	..	524	20·64	..	110
d Bradwell-on-Sea (Bradwell H.) . . . . .	J. C. Chillingworth, Esq. . . . .	5	1	1	27	603	23·73	171	125
4.—BLACKWATER. 425 sq. mi.									
d Shenfield (Cliveden) . . . . .	Mr. F. Copeman . . . . .	5	1	0	320	653	25·73	147	127
d Shenfield (The Lodge) . . . . .	Harcourt P. Landon, Esq. . . . .	5	0	7	305	614	24·18	..	..
d South Hanningfield (Peardowns) . . . . .	W. Hill, Esq. . . . .	8	1	10	133	583	22·97	179	122
d Ingatestone (Fryerning) . . . . .	A. E. Christy, Esq. . . . .	5	1	0	290	615	24·23	180	126
d Danbury Rectory . . . . .	Rev. J. Bridges Plumtre . . . . .	5	1	0	365	570	22·43	184	122
d Maldon (Osea Island) . . . . .	Mr. W. L. Hall . . . . .	5	..	..	..	558	21·98	..	..
d Woodham Walter Lodge . . . . .	H. H. Speakman, Esq. . . . .	5	1	6	137	609	23·96	146	128

\* Formerly called Southend (Corporation Observatory).

## DIVISION IV.—EASTERN COUNTIES—(con.).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain.		Days with ·01 in. or more.	Days with ·04 in. or more.	
		Diam.	Height Ground	above Sea Level.	1923				
ESSEX—(con.).		in.	ft.	in.	ft.	mm.	in.		
4.—BLACKWATER—(con).									
D Writtle (Melbourne) .....	J. A. Rosling, Esq. ....	5	0	9	140	598	23·53	183	117
D Chelmsford (County Laboratory) .....	H. M. McCreath, Esq. ....	5	1	0	134	608	23·95	175	121
Chelmsford (High Street) .....	Miss F. J. Chancellor ....	8	1	6	98	635	24·99	184	120
Witcham (Wickham Hall) .....	D. B. Smith, Esq. ....	5	0	8	60	535	21·07	138	111
D Pleshey Vicarage .....	Rev. C. H. B. Woodd. ....	8	1	3	..	577	22·71	190	131
Witcham (Faulkbourne Hall) ..	Miss C. L. Parker .....	5	0	8	100	580	22·85	169	121
D Hartford End (Leez Priory) ..	M. E. Hughes-Hughes, Esq. ....	5	1	0	170	609	23·97	182	135
D Kelvedon (Lawn House) .....	F. Randolph-Symmons, Esq. ....	5	1	0	96	598	23·56	172	127
D Kelvedon (White Barn) .....	W. & H. J. Sheldrake, Esqs. ....	5	1	5	135	550	21·67	165	115
D Felsted School .....	J. H. Owen, Esq. ....	5	1	2	248	578	22·74	167	117
D Coggeshall (The Hamlet) .....	Rev. A. F. Curtis .....	5	1	0	100	649	25·56	206	131
d Little Dunmow Council School ..	Miss M. A. L. Scott .....	5	1	0	258	586	23·08	..	..
D Great Dunmow .....	Messrs. Hasler & Co., Ltd. ....	5	1	0	200	560	22·05	177	122
d Rayne (Staneway) .....	Mrs. Burt .....	5	1	1	247	570	22·45	147	114
D Pattiswick Hall .....	Harris Smith, Esq. ....	5	0	8	200	605	23·82	146	125
D Great Saling (Woolpits) .....	Mrs. Joseph Smith .....	5	0	9	284	584	22·98	154	124
D Shalford (Littles) .....	W. F. Hart, Esq. ....	5	1	8	260	582	22·92	150	126
D St. Bardfield (South Lodge) ..	A. W. Brunwin, Esq. ....	5	1	0	250	598	23·53	165	131
5.—COLNE & C. 283 sq. mi.									
West Mersea (Waldegraves) ...	P. H. Cross, Esq.† .....	..	..	..	55	546	21·50	..	..
D Clacton-on-Sea .....	Mr. A. W. Shadick .....	8	1	0	55	516	20·32	174	117
Great Clacton (Clay Hall) .....	Philip Smith, Esq. ....	5	2	0	45	503	19·82	162	109
D Walton-on-the-Naze .....	The Town Clerk .....	5	1	0	69	455	17·94	149	111
Colchester (King's Ford) .....	Hon. Lady Digby .....	5	0	10	103	581	22·86	221	128
D Colchester (Boro' Surveyor's Off.) ..	H. Collins, Esq., C.E. ....	8	17	0	82	548	21·59	158	112
Lexden (Home Farm) .....	Mr. W. Bird .....	5	1	0	125	596	23·48	..	..
D Lexden (Hill House) .....	S. F. Hurnard, Esq. ....	5	1	0	90	570	22·43	163	114
Lexden Rectory .....	Rev. T. S. Raffles .....	5	1	4	116	602	23·69	161	125
Great Bromley (Broughton) ..	W. A. Roberts, Esq. ....	5	1	0	115	630	24·82	148	115
Earls Colne (Chalkney House) ..	H. F. Hills, Esq. ....	5	1	0	180	562	22·14	..	127
D Halstead (The Brewery) .....	Lt. E. T. Adams, R.N.V.R. ....	5	1	0	140	585	23·05	162	118
Gt. Maplestead (Monk's Lodge) ..	T. F. Miller, Esq. ....	5	0	9	230	596	23·46	..	..
D Great Yeldham Hall .....	G. A. Goodchild, Esq. ....	5	2	0	200	597	23·52	166	130
6.—STOUR. 110 sq. mi.									
D Manningtree (Dale Hall) .....	Nigel C. Cooke, Esq. ....	5	1	0	110	571	22·48	156	113
D Sudbury (Bulmer Lodge) .....	Miss Burke .....	5	1	3	202	606	23·87	177	125
D Belchamp Walter (The Hall) ..	Major T. G. C. Reynolds ...	5	1	0	150	591	23·28	180	124
7.—OUSE. 80 sq. mi.									
D Widdington Rectory .....	Rev. Jas. W. Court .....	5	1	6	340	556	21·90	143	115
d Arkesden (Wood Hall) .....	Charles Beadle, Esq. ....	5	0	9	400	686	27·02	..	..
SUFFOLK. (Area, 1489 sq. mi.)									
1.—STOUR. 271 sq. mi.									
D Stratford St. Mary Rectory .....	Rev. S. C. Calver .....	5	1	5	..	544	21·40	179	120
D East Bergholt (Ackworth Ho.) ..	A. Harwood, Esq. ....	8	1	6	145	490	19·29?	181	118
D Capel St. Mary School .....	Bernard B. Taylor, Esq. ...	5	1	6	156	640	25·18	177	124
D Great Cornard (The Firs) .....	A. B. Legard, Esq. ....	5	1	0	64	591	23·27	157	124
Great Cornard (The Limes) .....	E. Oliver, Esq. ....	5	0	9	65	557	21·95	156	125
D Sudbury (Friars Street) .....	E. Ransom, Esq. ....	5	1	7	93	587	23·11	206	119
D Hadleigh (Pealands) .....	E. A. Lee, Esq. ....	5	1	0	185	597	23·52	189	126
D Waldingfield (Holbrook Hall) ..	Mrs. St. Leger Glynn .....	5	4	6	185	615	24·22	198	141
D Hitcham Rectory .....	Rev. R. R. Cobbold .....	5	1	5	255	581	22·89	191	125
D Hitcham (Loose Hall) .....	T. A. Harwood, Esq. ....	5	1	0	275	576	22·68	166	112
D Hawkedon Rectory .....	Rev. B. P. Oakes .....	5	3	4	303	655	25·77	178	132
D Cockfield Rectory .....	Rev. Canon Edwin Hill ..	5	1	0	305	645	25·38	181	134

† Per "Essex Weekly News."

## DIVISION IV.—EASTERN COUNTIES—(con.).

STATIONS.	AUTHORITIES.	Rain Gauge.				Depth of Rain.		Days with ·01 in. or more.	Days with ·04 in. or more.
		Diam.	Height Ground	above Sea Level.	1923				
SUFFOLK—(con.).		in.	ft.	in.	ft.	mm.	in.		
2.—ORWELL. 166 sq. mi.									
d Ipswich (Rookwd., Copdock) (+A)	F. L. Bland, Esq. ....	8	1	0	164	570	22·43	192	114
d Ipswich (Dale Hall) .....	Percy Turner, Esq. ....	8	3	0	138	543	21·38	173	119
d Elmsett (Laurel Cottage) .....	A. E. Ladbroke, Esq. ....	5	3	0	210	579	22·78	..	116
d Nettlestead (High Hall) .....	A. S. P. White Cooper, Esq. ....	5	1	6	236	601	23·68	..	123
d Ringshall Rectory .....	Rev. Canon G. C. Blaxland	5	2	9	280	588	23·15	174	116
d Haughley (Haughley House)...	Major S. H. Creagh.....	5	1	0	188	549	21·61	166	118
3.—DEBEN & C. 466 sq. mi.									
d Felixstowe (Wireless Tel. Stat.)	Coastguard Officer.....	8	1	6	15	569	22·41	186	117
d Waldringfield .....	Major B. R. M. Glossop .....	..	..	..	..	548	21·58	..	..
d Woodbridge Abbey .....	Col. R. J. Carthew .....	8	1	2	46	601	23·65	196	118
d Orford (The Gables) .....	A. E. Rope, Esq.....	5	0	8	30	589	23·19	175	129
d Melton (Greylands).....	Miss Jervis .....	5	1	6	50	588	23·14	..	126
d Melton (St. Audrey's Hospital)	A. F. Philpott, Esq. ....	8	1	2	74	573	22·54	162	110
d Melton (Bromeswell Rectory)	Rev. F. Shadwell .....	5	1	0	35	518	20·40	175	122
d Rendlesham Hall .....	Lord Rendlesham .....	5	1	0	88	509	20·05	161	117
d Campsea Ashe (High House)...	Viscount Ullswater, G.C.B. ....	8	2	6	60	510	20·08	165	114
d Charsfield (Red House) .....	Hugh P. Youngman, Esq..	5	1	9	150	539	21·24	..	..
d Helmingham (Bocking Hall) .....	W. B. Damant, Esq. ....	5	1	6	180	647	25·49	164	129
d Snape (Green Heys) .....	G. H. Garrett, Esq. ....	5	1	6	50	586	23·08	163	123
d Leiston (Lower Abbey) .....	M. K. Rope, Esq. ....	5	0	7	30	537	21·16	..	109
d Halesworth Rectory .....	Rev. H. C. Newbery .....	5	1	0	50	659	25·93	186	124
d Halesworth (Estate Office) ....	G. W. Stanford, Esq. ....	5	2	3	120	655	25·79	182	131
d Wangford (Ford House).....	Hon. Agnes Eden .....	5	0	10	25	651	25·61	162	129
d Lowestoft (Mill Road) .....	Mr. Mark Bean.....	8	1	1	18	660	25·97	202	138
4.—YARE & C. 208 sq. mi.									
Horham Rectory .....	Rev. J. E. Soden.....	5	1	3	175	727	28·62	180	139
d Rumburgh Vicarage .....	Rev. W. Linton Wilson ..	5	1	0	148	621	24·46	180	121
d Bungay (Flixton Hall).....	Sir Shafto Adair, Bart. ....	5	1	0	79	739	29·10	..	..
d Beccles (Ballygate).....	R. L. T. Clarke, Esq.....	8	1	0	55	624	24·58	173	124
d Lowestoft (Belle Vue Park) .....	C. W. Edwards, Esq. ....	5	1	0	84	614	24·17	182	130
d Herringfleet (The Gables) .....	G. H. Wyllys, Esq. ....	5	0	8	55	635	24·98	193	136
d Lound Rectory .....	Mrs. Howes .....	5	1	0	63	604	26·13	216	146
d Lound Pumping Station .....	Lowestoft Water & Gas. Co. ....	8	1	0	34	595	23·44	159	130
d Fritton Warren .....	Major-Gen. R. Upcher, D.S.O. ....	5	0	8	42	674	26·52	189	135
d Fritton Hall .....	A. R. Buxton, Esq. ....	8	0	10	40	631	24·84	195	137
d Yarmouth (Burgh Hall) .....	H. P. Frederick, Esq.....	5	0	10	45	580	22·85	183	130
5.—OUSE. 378 sq. mi.									
d Drinkstone .....	J. E. Townsend, Esq. ....	5	3	0	270	631	24·85	147	125
d Newmarket(Sewage Outfall) .....	W. H. Eley, Esq., C.E.....	5	1	0	81	617	24·28	144	120
d Bury St. Edmunds(Guildhall St.)	R. H. Wilson, Esq. ....	5	..	..	105	743	29·25	189	141
d Bury St. Edmunds(Northgate St.)	Rev. J. S. Pratt .....	5	1	0	100	677	26·66	176	126
d Bury St. Edmunds(Hengrave Hl)	Sir John Wood, Bart., M.P. ....	5	1	5	85	599	23·60	..	..
d Mildenhall .....	H. R. W. Forster, Esq. ....	5	1	3	50	573	22·57	183	112
d Barningham (The Beeches) .....	Miss A. K. Lingwood .....	8	0	9	136	581	22·86	..	..
d Elveden Hall .....	The Earl of Iveagh, K.P....	5	1	0	130	641	25·22	189	119
NORFOLK. (Area, 2044 sq. mi.)									
1.—YARE. 658 sq. mi.									
d Brockdish Rectory .....	Rev. Wilson W. White....	8	1	1	115	610	24·02	180	123
d Diss (The Cedars) .....	Dr. H. M. Speirs .....	5	1	8	108	565	22·26	..	108
d Pulham St. Mary (Hill House) .....	W. G. Rutter, Esq.....	5	1	0	120	672	26·44	221	146
d Denton Rectory .....	Rev. Canon T. H. Bindley.	5	0	10	50	606	23·86	177	123
d Long Stratton(Gt. Moulton Rec.)	Rev. T. D. Chute .....	5	1	0	150	660	26·00	160	131
d Stratton St. Mary Rectory.....	Hubert Satchell, Esq.....	5	1	0	170	589	23·19	191	118
d Beccles (Geldeston) .....	Miss E. Dowson .....	5	1	0	37	612	24·10	186	115
d Ditchingham .....	W. G. Rutter, Esq. ....	5	1	0	25	613	24·13	176	119
d Beccles (Raveningham Hall) .....	N. H. Bacon, Esq. ....	8	1	3	60	599	23·57	..	..
d Spooner Row (Wattlefield Hall)	E. F. Routh Clarke, Esq. .	5	1	4	165	696	27·39	176	126



## DIVISION IV.—EASTERN COUNTIES—(con.).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain. 1923	Days with ·01 in. or more.	Days with ·04 in. or more.		
		Diam.	Height Ground	above Sea Level.					
NORFOLK—(con.).		in.	ft.	in.	ft.	mm.	in.		
1.—YARE—(con.).									
d Wymondham (Morley School).	T. E. Ormond, Esq.	8	1	8	100	651	25·65	196	126
d Wymondham	J. B. Pomeroy, Esq.	8	1	3	118	754	29·67	172	131
d Hingham Rectory.	Rev. Canon A. C. Upcher*	5	0	11	195	651	25·64	166	125
d Keswick Old Hall	E. Knight, Esq.	5	1	0	90	713	28·05	196	140
d Gorleston Coastguard Station.	The Meteorological Office	8	1	0	16	618	24·36	179	127
d Yarmouth (Northgate Street)	G. W. Hughes, Esq.*	5	1	0	7	633	24·92	190	136
d Norwich(Christ Church Rd Eaton)	A. W. Preston, Esq.	5	1	0	98	705	27·74	199	147
d Norwich(Carrow Abbey Gardens)	Miss Colman	5	1	3	35	700	27·57	189	135
d Norwich (Ipswich Road)	J. H. Willis, Esq.	5	1	0	110	673	26·50	196	144
d Norwich (Heigham Cemetery).	J. R. Everitt, Esq.*	5	3	2	37	672	26·46	181	139
d Thorpe St. Andrew (Thorpehurst)	Capt. J. H. Mander, O.B.E.	5	1	6	45	670	26·39	204	144
d Norwich (Marlingford Hall)	Major E. H. Evans-Lombe	5	1	0	50	724	28·51	..	..
d Sprowston (Oak Lodge)	A. Cozens Hardy, Esq.*	5	1	0	100	672	26·44	202	133
d Drayton Hall	J. H. Walter, Esq.	5	0	8	..	698	27·47	..	..
d Swanton Morley Rectory	Rev. G. D. Barry	5	1	0	105	633	24·92	..	..
d Bylaugh Park Gardens.	Mr. G. Beeton	5	1	0	130	665	26·19	162	127
d Swanington (Heath House)	P. Norgate, Esq.	5	1	3	101	657	25·85	197	133
d East Bilney Hall	S. Bircham, Esq.*	5	4	0	140	687	27·06	193	134
d Reepham (Old Brewery House)	S. Bircham, Esq.*	5	1	5	150	767	30·21	214	164
d Cawston Rectory.	Rev. T. H. Marsh*	5	1	0	120	734	28·88	191	136
2.—YARE—Bure & c. 368 sq. mi.									
d Acle	Miss Davie*	5	0	6	51	669	26·35	211	133
d Sprowston (Council School)	G. S. Martin, Esq.	5	1	0	110	704	27·72	180	136
d Yarmouth (Ormesby St. Michael)	Gt. Yarmouth W. W. Co.	8	1	0	22	607	23·89	211	136
d Wroxham House	D. Chisholm, Esq.	5	1	6	..	738	29·04	159	127
d Coltishall (Manor House)	F. A. Bainbridge, Esq.	5	0	11	30	688	27·10	187	127
d Wroxham (Hoveton Hall)	G. F. Buxton, Esq., C.B.	5	3	6	25	701	27·61	187	141
d Aylsham (Rippon Hall)	Major H. S. Marsham	5	0	7	90	708	27·87	149	124
d Worstead (Frankfort Manor)	J. R. W. Pigott, Esq.	5	5	4	50	695	27·37	168	125
d Worstead (Dilham)	Rev. J. A. Laurence*	5	0	8	25	662	26·06	203	141
d Worstead (Lyngate Cottage)	(+ A) Miss F. E. Hooper	8	1	0	55	697	27·42	171	134
d Aylsham (Woodgate House)	Lt.-Col. J. W. Purdy	5	1	0	100	669	26·34	181	139
d Hindolveston (Church Farm)	R. G. Lee, Esq.	5	1	0	..	674	26·53	156	127
d North Walsham (Empson House)	W. S. Horn, Esq.	5	1	0	102	691	27·19	191	134
d Swafield Rectory.	Rev. H. Muir	5	0	10	100	693	27·30	183	129
d North Walsham (Gunton Park)	W. Allan, Esq.*	8	1	6	..	687	27·03	169	131
d Mundesley (Raxawa House)	C. S. Morris, Esq.	5	3	0	..	662	26·05	..	..
d Mundesley	R. C. Wade, Esq.	5	1	0	100	691	27·20	..	..
d Baconsthorpe Rectory	Rev. H. Milnes Walker	5	1	6	280	617	24·30	174	132
d Cromer (Northrepps Hall)	Mrs. R. Gurney*	5	1	2	225	787	30·97	217	143
3.—STIFFKEYS & C. 288 sq. mi.									
d Sandringham House Gardens	Mr. T. H. Cook	5	0	9	121	671	26·40	208	130
d Walsingham	Rev. Canon J. Blake-Humfrey	5	0	6	54	687	27·05	197	139
d Cromer (The Warren)	F. H. Barclay, Esq.	8	1	8	101	703	27·67	174	129
d Langham Episcopi Vicarage	Rev. John H. Toy*	5	0	6	139	611	24·06	218	139
d Sheringham Hall	Miss. E. Upcher	5	0	10	120	633	24·91	166	119
d Blakeney	Mr. R. Lee	5	1	3	29	637	25·08	199	153
d Wells (Holikham Hall)	Earl of Leicester, G.C.V.O.	8	3	6	39	612	24·08	172	128
d Hunstanton	Capt. C. E. Gray	5	1	0	30	507	19·96	187	117
4.—OUSE & C. 700 sq. mi.									
d E Harling (Garboldisham Mnr)	Mjr E. Wriothsley Denny, D.S.O.	8	1	0	70	629	24·76	169	120
d Thetford (Ford Street Gdns.)	Mr. A. Pipe	5	1	0	44	657	25·88	..	119
d Thetford (Kilverstone Hall)	Baron Fisher of Kilverstone	8	4	0	70	624	24·58	190	126
d Thetford (Waterworks)	E. S. Greenwood, Esq.	8	1	0	165	628	24·72	198	127
d Attleborough (Quidenham Hall)	Mr. J. Dewhurst	5	1	0	100	696	27·40	..	110
d Brandon House.	Mr. W. Wilby	..	..	..	..	614	24·18	..	..
d Hargham Hall	Sir H. R. Beever, Bart., M.D.	8	0	6	100	693	27·30	182	123

\* Per Norfolk Rainfall Organisation.

## DIVISION IV.—EASTERN COUNTIES—(con.).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain.		Days with ·01 in. or more.	Days with ·04 in. or more.	
		Diam.	Height Ground	above Sea Level.	1923				
NORFOLK—(con.).		in.	ft.	in.	ft.	mm.	in.		
4.—Ouse & C.—(con.).									
Methwold (Agric. Estate).....	A. C. Davies, Esq. ....	5	1	0	90	674	26·53	..	104
D Watton (Merton Hall Gardens).....	Mr. G. Barrell.....	5	1	0	156	680	26·76	176	122
D Watton .....	A. A. Gompertz, Esq.....	5	1	0	166	705	27·77	172	127
D Downham (Dial House) .....	Messrs. T. H. Wenn & Co. .	5	1	6	..	555	21·84	150	111
d Downham (High Street) .....	J. M. Jackson, Esq. ....	5	1	6	16	550	21·67	..	107
Outwell (Well Creek Sluice).....	Major R. G. Clark, C.E.....	9	2	6	16	566	22 28	..	103
D Emneth (Inglethorpe Manor)....	F. M. Bland, Esq. ....	5	1	0	6	600	23·62	161	127
Wallington Hall .....	J. L. Luddington, Esq. .	5	0	6	58	628	24·72	162	127
D Swaffham .....	W. H. Plowright, Esq. .	5	5	0	250	672	26·45	168	125
D Swaffham (The Villa).....	H. Lee Warner, Esq. ....	5	0	9	246	728	28·65	183	129
D Sporle .....	T. S. Matthews, Esq. ....	5	4	0	230	702	27·65	208	139
D Little Dunham (Dunham Cott.)	A. G. Copeman, Esq.*.....	5	1	1	320	676	26·61	195	125
Great Dunham (The Rectory)....	Rev. E. C. S. Upcher ....	5	1	0	250	726	28·59	172	134
Wiggenhall (St. Germans Sluice)...	Major R. G. Clark, C. E. .	8	1	6	..	636	25·03	164	132
D East Winch (Holland House) ..	J. C. Cottam, Esq. ....	5	1	3	55	608	23·93	167	129
D King's Lynn (Manure Works) .	J. Brown, Esq. ....	5	3	10	10	651	25·64	163	125
Tittleshall .....	Capt. H. J. Buxton .....	5	1	6	285	669	26·33	186	143
5.—NENE. 30 sq. mi.									

## DIVISION V.—SOUTH-WESTERN COUNTIES.

## WILTSHIRE. (Area, 1375 sq. mi.)

## 1.—LOWER AVON. 386 sq. mi.

D Westbury Vicarage.....	Rev. E. C. Alexander .....	5	1 3	181		759	29·89	192	140
D Erelstone Vicarage .....	Rev. H. S. Travers .....	5	0 6	320		868	34·16	164	139
Market Lavington (Old House).....	Miss A. Pleydell Bouverie. .	5	0 9	290		783	30·83	199	149
D Trowbridge (Rood Ashton) ....	Mr. W. Strugnell .....	8	1 6	250		931	36·64	203	152
D Bradford (Woodleigh) .....	A. Scrutton, Esq. ....	5	2 4	226		869	34·22	198	163
D Bradford (Winsley Manor) .....	E. W. Knatchbull, Esq. ....	5	0 6	400		801	31·52	201	152
D Bradford (Manvers House) .....	Dr. C. E. S. Flemming .	5	1 6	130		800	31·50	191	148
D Seend (Cleeve House) .....	(R) W. Heward Bell, Esq. ....	..	1 0	160		774	30·46	215	143
D Seend (Manor Cottage).....	Rev. E. Seymour Awdry ..	5	1 0	305		677	26·64	209	146
D Seend (Ferrum Towers) .....	H. W. Langley Haigh, Esq. .	8	1 3	250		813	32·01	206	152
D Holt (The Retreat) .....	A. V. H. Beaven, Esq. ....	5	2 6	145		782	30·80	171	148
Devizes (Wilts Co. Mental Hospl.)	Dr. S. J. Cole .....	8	2 3	385		750	29·54	165	133
D Devizes (Highclere).....	H. W. Green, Esq. ....	5	1 6	480		831	32·70	192	143
D Devizes (Southbroom Vicarage)	Rev. H. C. B. Lethbridge. .	5	1 0	425		845	33·28	187	143
Great Chalfield.....	R. F. Fuller, Esq.....	5	1 2	166		805	31·71	194	155
D Calne (High Street) .....	E. W. Brown, Esq. ....	4	1 0	242		823	32·41	190	147
D Chippenham (Rowden Hill) ..	Miss A. M. Collen .....	5	1 4	223		814	32·05	188	155
Chippenham (Kington Langley) late	Charles Garnett, Esq. .	8	1 0	270		857	33·76	..	..
D Wroughton (Basset Down Ho.)	Mrs. Story Maskelyne ..	5	1 0	500		871	34·29	179	137
w Luckington Court .....	Major A. Johnson-Ferguson	5	0 9	400		894	35·20	..	..
Malmesbury (Manor House) .....	H. L. Storey, Esq. ....	8	2 10	330		815	32·07	181	134
D Malmesbury (Easton Grey)....	Mr. W. Balcombe.....	5	3 9	350		895	35·25	184	147

## 2.—STOUR. 33 sq. mi.

D Mere (Charnage) .....	A. R. White, Esq. ....	5	1 0	426		915	36·01	227	174
Mere (Salisbury Street) .....	F. D. Raymond, Esq.....	5	1 0	400		1055	41·54	..	..
d Stourhead .....	Sir H. H. A. Hoare, Bart..	5	1 0	583		1159	45·62	..	..
D Kilmington Rectory .....	Rev. H. G. Fox-Strangways	5	1 6	710		843	33·19	228	166

\* Per Norfolk Rainfall Organisation.

## DIVISION V.—SOUTH-WESTERN COUNTIES—(con.).

STATIONS.	AUTHORITIES.	Rain Gauge.				Depth of Rain.		Days with ·01 in or more.	Days with ·04 in. or more.
		Diam.	Height Ground	above Sea Level.		1923			
WILTSHIRE—(con.).		in.	ft.	in.	ft.	mm.	in.		
3.—EAST AVON. 554 sq. mi.									
d Tisbury (The Academy)	J. Bristol, Esq.	5	0	9	380	1108	43·61	182	138
d Fonthill House Gardens	Hugh Morrison, Esq., M.P.	5	1	0	400	1001	39·43	192	157
d Salisbury (Sewage Works)	W. J. Goodwin, Esq. C.E.	5	2	2	153	800	31·50	171	123
d Salisbury (Fowlers Hill)	Mrs. T. Awdry	5	1	0	225	758	29·85	164	132
d Salisbury (Atherton House)	Wilfrid Fletcher, Esq.	5	0	11	250	798	31·40	209	128
d Stratford-sub-Castle(ManorHo.)	Miss F. Carpenter	5	0	9	165	772	30·41	184	134
d Woodford (Magnolia Cottage)	Col. C. P. Deedes	5	1	0	260	786	30·96	165	132
d Porton(W.D.Experimental Stn.)	War Office	5	1	0	363	742	29·21	178	125
d Wylve Rectory	Rev. E. Montagu Parken..	5	1	8	246	809	31·86	185	137
d Codford(Stockton House Gdns.)	Mr. W. H. Symons	5	1	0	260	899	35·41	178	142
d Maiden Bradley	The late Duke of Somerset.	5	1	6	626	1015	39·97	220	170
d Sutton Veny (Greenhill)	Basil R. Hoare, Esq.	5	1	0	300	877	34·52	196	146
d Heytesbury	Dr. Hammond T. Hinton..	5	1	7	300	845	33·25	207	143
d Larkhill (Sch. of Artillery)	The Meteorological Office..	8	1	0	439	728	28·68	194	133
d Salisbury Plain (Chitterne Ho.)	Admiral Charles Napier...	12	1	0	312	806	31·75	169	147
d Chirton Old Manor Farm	Mr. T. Selve	5	3	0	374	854	33·63	186	141
d Bishops Cannings Vicarage	Mrs. H. H. Mogg	5	1	0	448	823	32·40	181	140
4.—TEST. 77 sq. mi.									
Landford (Northlands)	Cedric R. Boulton, Esq.	5	1	0	180	797	31·38	..	124
d Ludgershall (Conholt Park)	(R)E. A. Wigan, Esq.	8	1	0	800	834	32·83	158	135
5.—THAMES—Kennet. 169 sq. mi.									
d Marlborough College	A. Robson, Esq.	5	1	0	424	848	33·39	195	138
d Marlborough (Mildenhall)	Rev. Gordon Soames	5	1	0	456	772	30·40	164	134
d Aldbourne (Upham House)	Mrs. Currie..	5	2	0	875	762	30·00	..	..
6.—THAMES—Cole & c. 156 sq. mi.									
d Chiseldon (Hodson House)	A. Ashford, Esq.	5	0	9	570	805	31·70	185	143
d Purton (Restrop House)	Col. A. Canning	5	1	3	444	745	29·31	..	134
DORSETSHIRE. (Area, 988 sq. mi.)									
1.—PARRETT. 61 sq. mi.									
d Evershot (Melbury House)	Mr. R. Rintoul	5	1	6	500	1016	39·99	..	132
d Chedington Court	Sir Henry Peto, Bart.	9	1	0	605	973	38·29	180	126
d Leigh Vicarage	Rev. T. L. Jenkins	5	0	10	250	994	39·13	177	144
d Sherborne Castle	Mr. Edwin Hill.	5	1	0	195	861	33·89	220	150
d Sherborne (Castleton)	Reading T. Grantham, Esq.	5	1	0	200	849	33·41	..	..
d Nether Compton Rectory	Rev. Canon E. W. Goodden	5	0	8	160	761	29·98	177	149
2.—AXE. 25 sq. mi.									
d Broadwindsor (Blackdown Ho.)	C. E. M. Pinney, Esq.	5	0	9	515	1070	42·13	168	135
d Thorncombe (Greenhill)	A. D. Wilde, Esq.*	..	..	..	..	921	36·25	..	..
d Forde Abbey	Freeman Roper, Esq.	5	0	11	226	975	38·40	185	138
3.—FROME & C. 502 sq. mi.									
d Portland Bill (New Lighthouse)	The Meteorological Office..	8	1	0	19	652	25·68	166	121
d Portland (H. M. Naval Depôt)	W. Young, Esq., C.E.	8	1	6	25	818	32·22	..	..
d Weymouth (Westham)	G. Nicolson, Esq.	5	1	0	20	732	28·81	192	126
d Weymouth (Springfield)	Major J. H. C. Devenish ..	5	1	3	96	762	30·00	192	136
d Chickerell (Montevideo)	Mrs. N. M. Richardson, O.B.E.	5	1	0	100	747	29·39	207	134
d Tyneham House	Mrs. W. H. Bond	8	1	6	255	886	34·88	175	133
d Corfe Castle (Kingston Vicarage)	Rev. R. A. Bond	5	1	3	452	887	34·93	192	143
d Corfe Castle (Bucknowle Ho.)	C. Waterston, Esq.	5	1	6	170	825	32·48	176	135
d Creech Grange	J. W. G. Bond, Esq.	5	1	0	241	954	37·57	165	145
d Abbotsbury (New Barn)	J. C. P. White, Esq.	5	1	6	111	741	29·19	196	124
d Upwey (Friar Waddon)	T. H. Tyson, Esq., C.E.	5	1	0	215	907	35·72	181	135
d Upwey (Higher Well)	T. H. Tyson, Esq., C.E.	8	1	0	290	876	34·48	179	139
d Wareham (East Holme)	G. D. Bond, Esq.	5	1	0	23	927	36·51	169	143
d Wareham (South Street)	S. W. Bennett, Esq.	5	2	6	18	815	32·07	163	136

\* Per Mid-Wessex Rainfall Association.

## DIVISION V.—SOUTH-WESTERN COUNTIES—(con.).

STATIONS.	AUTHORITIES.	Rain Gauge.				Depth of Rain.		Days with .01 in. or more.	Days with .04 in. or more.
		Diam.	Height Ground	above Sea Level	1923				
DORSETSHIRE—(con.)		in.	ft.	in.	ft.	mm.	in.		
3.—FROME & C—(con.).									
Wareham (Binnegar Hall) . . . . .	Mr. J. W. Hayward . . . . .	5	1	0	65	850	33.47	172	132
D Wareham (Trigon) . . . . .	Mrs. L. Sturdy . . . . .	8	1	4	60	883	34.75	164	130
D Dorchester (Kingscote) . . . . .	E. A. Ffooks, Esq. . . . .	5	1	0	226	1034	40.71	177	143
D Dorchester Water Works . . . . .	H. D. Strange, Esq. . . . .	8	1	0	315	978	38.50	198	126
D Dorchester (Wollaston House) . . . . .	Capt. J. E. Acland . . . . .	5	1	0	200	980	38.60	192	134
D Dorchester (Birkin House) . . . . .	Col. W. H. F. Weber, C.M.G., D.S.O. . . . .	5	0	0	230	1026	40.39	181	127
D Holton Heath (R.N. Cordite Fac.) . . . . .	The Superintendent . . . . .	8	1	0	64	835	32.88	172	130
D Parkstone (Firgrove) . . . . .	E. N. M. Wadman, Esq. . . . .	5	1	0	180	790	31.09	193	131
Parkstone (Combe) . . . . .	Rev. J. C. Fox . . . . .	5	0	10	103	853	33.60	166	127
d Branksome (Bourne Valley) . . . . .	P. G. G. Moon, Esq. . . . .	8	1	3	84	770	30.33	..	..
D Branksome (Alderney Res.) . . . . .	P. G. G. Moon, Esq. . . . .	8	1	3	213	749	29.49	216	162
Lyme Regis (Horn Bridge) . . . . .	E. T. Stoward, Esq. . . . .	5	1	0	100	849	33.43	185	136
D Lyme Regis (Boat Close) . . . . .	Henry Ellis, Esq. . . . .	5	1	3	495	847	33.34	181	129
D Lyme Regis (Rotherfield) . . . . .	Rev. E. J. Synge . . . . .	5	0	8	145	882	34.72	209	147
D Lyme Regis (Overton) . . . . .	C. Wanklyn, Esq. . . . .	5	3	0	400	778	30.62	211	123
Lyme Regis (Evington) . . . . .	J. E. Hewitt, Esq. . . . .	5	0	9	300	843	33.21	185	133
D Lyme Regis (Highcliff) . . . . .	Miss G. Lister . . . . .	5	1	3	330	778	30.62	182	122
D Bridport (Coneygar) . . . . .	H. Gordon, Esq., C.E. . . . .	5	1	0	110	907	35.71	163	135
d Bradrord Peverell . . . . .	Mrs. Middleton . . . . .	6	1	2	381	1013	39.89	..	128
D Moreton (Oaker's Wood) . . . . .	Miss Fetherstonhaugh . . . . .	5	1	0	160	891	35.09	161	136
D Tolpuddle Parsonage . . . . .	Rev. Harold R. Long . . . . .	5	0	6	100	924	36.39	184	132
D Puddletown Vicarage . . . . .	Rev. A. R. Helps . . . . .	5	2	8	195	1062	41.82	171	142
D Bere Regis (Barrow Hill) . . . . .	Mr. A. E. Lucas . . . . .	5	1	0	120	862	33.94	166	123
D Bere Regis (Bloxworth House) . . . . .	F. G. A. Lane, Esq. . . . .	5	1	6	118	947	37.30	172	138
D Wynford House . . . . .	Col. Lord Wynford, D.S.O. . . . .	5	1	0	410	1152	45.36	197	143
D Beaminster (Hamilton Lodge) . . . . .	Fiennes Trotman, Esq. . . . .	5	1	0	210	1040	40.94	201	142
4.—STOUR. 388 sq. mi.									
D Kinson (Eglinton) . . . . .	W. C. Keevil, Esq. . . . .	5	0	6	45	877	34.53	196	138
D Wimborne (Corfe Mullen W. W.) . . . . .	G. V. Sparrow, Esq., C.E. . . . .	5	1	0	81	855	33.67	172	137
D Wimborne (Corfe Mullen, For. H.) . . . . .	E. Philip Belben, Esq. . . . .	8	2	0	300	855	33.68	170	140
d Winterbourne Whitchurch Vic. . . . .	Rev. H. H. Tilney Bassett . . . . .	8	0	6	241	1006	39.59	..	128
D Sturminster Marshall (Bailie Ho.) . . . . .	Rev. J. Cross . . . . .	5	1	0	85	879	34.62	183	136
D Wimborne (Codford House) . . . . .	G. H. Batterbury, Esq., M.D. . . . .	5	0	9	69	860	33.86	229	138
d Blandford (Bryanston Gardens) . . . . .	Mr. J. Jaques . . . . .	5	1	0	155	1131	44.52	..	157
D Turnworth . . . . .	Lt.-Col. W. Parry Okeden . . . . .	5	1	0	473	1068	42.05	199	148
d Horton Vicarage . . . . .	Rev. R. de Bary . . . . .	5	1	6	133	683	26.89	..	..
D Holwell (Westrow House) . . . . .	W. Warry, Esq. . . . .	5	1	0	252	857	33.73	175	137
D Wimborne St. Giles (St. Giles Ho.) . . . . .	The Earl of Shaftesbury, K.P. . . . .	5	1	6	165	907	35.70	191	136
D Gussage St. Michael Manor . . . . .	Mrs. Good . . . . .	5	1	4	201	929	36.58	174	137
D Iwerne Courtney Rectory . . . . .	Rev. R. H. Gundry . . . . .	5	1	2	200	968	38.10	186	153
D Iwerne Minster House Gardens . . . . .	J. H. Ismay, Esq. . . . .	5	1	0	244	914	36.00	202	137
D Fontmell Magna (Glebe Cottage) . . . . .	Dr. J. Appleyard . . . . .	8	1	8	300	848	33.37	176	144
Handley (W. Woodyates Man.) . . . . .	F. B. Eastwood, Esq. . . . .	5	1	0	368	896	35.28	..	..
D Shaftesbury . . . . .	G. P. Barter, Esq. . . . .	5	1	0	722	814	32.05?	195	147
D East Stour (Homestead) . . . . .	C. E. Davies, Esq. . . . .	8	1	0	330	879	34.59	221	153
D Bourton . . . . .	B. P. Bartlett, Esq. * . . . .	5	1	4	353	932	36.68	214	157
5.—EAST AVON. 12 sq. mi.									
SOUTH DEVONSHIRE. (Area, 1707 sq. mi.)									
1.—PARRETT. 7 sq. mi.									
2.—TAMAR & C. 395 sq. mi.									
d Plymouth (Boveysand Lodge) . . . . .	Rev. J. F. Case . . . . .	5	1	6	75	918	36.13	..	157
D Plymouth (Cattewater)† . . . . .	The Meteorological Office. . . . .	8	1	0	82	898	35.34	218	154
D Plymouth (The Hoe) . . . . .	H. Victor Prigg, Esq., C.E. . . . .	8	1	0	117	858	33.78	217	161
D Plymouth (Drake's Reservoir) . . . . .	F. Howarth, Esq., C.E. . . . .	5	1	0	149	1025	40.34	204	160

\* Per Mid-Wessex Rainfall Association.

† Exposure not satisfactory.

## DIVISION V.—SOUTH-WESTERN COUNTIES—(con.).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain.	Days with ·01 in. or more.	Days with ·04 in. or more.	
		Diam.	Height Ground	above Sea Level.				
SOUTH DEVONSHIRE—(con.).		in.	ft.	in.	ft.	mm.	in.	
<b>2.—TAMAR &amp; C.—(con.)</b>								
D Plymouth (Freedom Park)(+A) H. Victor Prigg, Esq., C.E.	8	1	0	208	1063	41·86	211	165
D Devonport (Rowdens Res.) ... F. Howarth, Esq., C.E. ...	5	1	0	201	952	37·49	208	159
D Plymouth (Hartley Reservoir) F. Howarth, Esq., C.E. ...	5	1	0	321	1086	42·76	210	169
D Bickley (Roborough Reservoir) F. Howarth, Esq., C.E. ...	5	1	0	548	1345	52·96	247	184
Lee Moor Clay Works ..... R. Martin, Esq. ....	8	1	0	900	1804	71·01	238	..
D Yelverton (Oakfield)..... H. Edgcombe, Esq.....	5	1	0	535	1549	60·97	237	186
D Bere Alston (Rumleigh) ..... Sir A. W. Croft, K.C.I.E. ...	5	1	6	125	1327	52·25	253	186
D Sheepstor (Red Stone) ..... F. Howarth, Esq., C.E. ...	5	1	0	763	1755	69·10	254	193
D Sheepstor (Burrator) ..... F. Howarth, Esq., C.E. ...	5	1	0	755	1831	72·08	255	203
D Sheepstor (Head Weir) ..... F. Howarth, Esq., C.E. ...	5	1	0	720	1783	70·18	254	199
D Dousland Reservoir ..... F. Howarth, Esq., C.E. ...	5	1	0	721	1503	59·18	246	192
D Dartmoor (Deancombe Farm) F. Howarth, Esq., C.E. ...	5	1	0	830	1773	69·79	242	201
D Dartmoor (Lowery) ..... F. Howarth, Esq., C.E. ...	5	1	0	899	1822	71·73	252	206
D Dartmoor (Leather Tor Farm) F. Howarth, Esq., C.E. ...	5	1	0	910	1816	71·51	246	215
M Dartmoor (Siwards Cross) .... F. Howarth, Esq., C.E. ...	5	1	0	1200	1806	71·10	..	..
D Whitchurch (Ashleigh) ..... Col. G. H. Bittleston .....	5	0	9	500	1447	56·99	244	193
Whitchurch (Langstone) ..... Col. H. F. Coleridge, C.B.E. ...	5	1	0	700	1525	60·04	239	194
D Whitchurch (Ashbrook) ..... Rev. H. B. Grylls .....	5	1	0	400	1405	55·30	233	193
D Tavistock ..... W. J. Monk, Esq. ....	5	1	0	457	1429	56·27	259	197
D Tavistock (The Library)..... J. Spurway, Esq. ....	8	20	0	282	1290	50·77	233	187
M Dartmoor (Leeden Tor) ..... F. Howarth, Esq., C.E. ...	5	1	0	1270	1541	60·65	..	..
M Dartmoor (N.Hessary Tor) No. 2 F. Howarth, Esq., C.E. ...	5	1	0	1502	1708	67·25	..	..
D Lifton (Kelly House) ..... Rev. Maitland Kelly .....	8	2	6	462	1332	52·43	227	186
d Coryton Manor (Lewdown) ... W. H. Blatchford, Esq. ....	5	1	2	450	1366	53·77	..	178
D Launceston (Polapit Tamar) ... R. C. Coode, Esq. ....	5	1	0	315	1249	49·19	242	191
Ashwater Rectory..... Rev. G. D. Melhuish .....	5	1	0	500	1299	51·13	218	198
<b>3.—ERM &amp; C. 217 sq. mi.</b>								
D Salcombe (Blackstone Lodge) .W. J. Shaw, Esq. ....	5	1	3	280	1038	40·87	223	168
D South Huish (Ackmans) ..... W. F. Balkwill, Esq. ....	5	0	8	68	1185	46·64	..	..
D Kingsbridge (Bank House) ... W. H. Skinner, Esq. ....	5	5	0	60	1101	43·33	205	157
d East Allington (Fallapit Gdns.) Lord Ashcombe .....	5	1	0	327	1301	51·23	..	168
D Yealmpton (Torr) ..... Miss M. Wimbush .....	5	0	11	100	1007	39·64	225	157
D Ermington (Strode) ..... Capt. H. Gore Hawker ...	5	1	0	75	1218	47·97	214	159
D Ivybridge (Filham House) .... H. Alger, Esq. ....	5	1	0	162	1291	50·84	234	183
D Wrangaton (Plymouth M. Hos.) H. Victor Prigg, Esq., C.E. ...	5	1	0	608	1667	65·65	243	193
d South Brent (Glazebrook) .... Vere Cholmondeley, Esq. ...	5	1	0	500	1792	70·55	..	179
D South Brent (Great Aish) ..... Miss Kingwell .....	5	1	0	500	1817	71·53	242	190
D South Brent (Badworthy) .... T. W. Latham, Esq. ....	5	1	6	550	1982	78·03	..	..
<b>4.—DART. 197 sq. mi.</b>								
Churston Ferrers (Greenway) .. Mrs. C. Williams .....	5	0	10	..	1150	45·27	171	147
Brixham (Combe Bank) ..... H. Clayton, Esq. ....	5	6	6	115	978	38·49	194	142
D Ashprington (Myrtle Cottage) .. G. H. Beecheno, Esq. ....	5	1	0	250	1058	41·65	175	149
D Waddeton Court ..... Sir A. L. Goodson, Bart. ...	5	1	0	175	1196	47·10	223	168
d Totnes (Dundridge Gardens) ... Mr. C. H. Cole. ....	5	1	0	252	1379	54·31	..	148
D Paignton (Queen's Park) ..... C. Bellinger, Esq. ....	8	1	0	11	887	34·92	184	138
D Paignton (Torquay Road) ..... H. Le B. Gunner, Esq. ...	5	1	0	10	920	36·22	205	143
D Paignton (Claylands) ..... G. M. Rosling, Esq. ....	8	1	2	150	1008	39·69	204	143
D Totnes (Berry Pomeroy) ..... C. Barran, Esq. ....	5	1	6	185	1127	44·37	190	152
d Totnes (Staverton) ..... J. A. Devenish, Esq. ....	5	0	11	50	1138	44·82	..	144
d Totnes (Broadhempston) ..... Charles Mole, Esq. ....	5	1	0	135	970	38·19	..	..
Ipplepen Vicarage ..... Rev. R. D. Cooke .....	5	1	0	266	988	38·89	188	157
D Holne (Church Park Cottage) ... L. W. Frost, Esq. ....	5	1	6	620	1908	75·12	229	182
D Ashburton (Orchard Mount) ... J. F. Scarlett, Esq. ....	5	1	0	300	1398	55·05	226	171
d Ashburton (Druid House) ..... J. S. Amery, Esq. ....	5	1	0	584	1450	57·10	227	175
D Ashburton (Leusdon Lodge) ..... Col. S. R. A. Hankey .....	5	0	7	800	1461	57·54	193	170
D Princetown (Huccaby House) .Major H. H. Joll, D.S.O. ...	5	1	0	900	1629	64·15	219	188
W Dartmoor (Cowsic Valley) ..... F. Howarth, Esq., C.E. ...	8	1	6	1352	2079	81·83	..	..
M Dartmoor (Black Dunghill) No. 5 F. Howarth, Esq., C.E. ...	8	1	0	1590	1471	57·90*	..	..
M Dartmoor (Beardown Tor) No. 3 F. Howarth, Esq., C.E. ...	8	1	0	1550	1398	55·05*	..	..
M Dartmoor (White Tor) ... No. 1 F. Howarth, Esq., C.E. ...	8	1	0	1640	1276	50·25*	..	..
M Dartmoor (Devil's Tor) No. 2 F. Howarth, Esq., C.E. ...	8	1	0	1785	1481	58·30*	..	..
M Dartmoor (Cowsic Head) .No. 4 F. Howarth, Esq., C.E. ...	8	1	0	1580	1785	70·28	..	..

\* Gauge over-exposed on moor.

## DIVISION V.—SOUTH-WESTERN COUNTIES—(con.).

STATIONS.	AUTHORITIES.	Rain Gauge.				Depth of Rain.		Days with ·01 in. or more.	Days with ·04 in. or more.
		Diam.	Height Ground	above Sea Level.		1923			
				in.	ft.				
SOUTH DEVONSHIRE—(con.).						in.	mm.		
5.—TEIGN. 209 sq. mi.									
D Torquay (Cary Green)	G. E. Body, Esq.	5	1	0	12	799	31·46	188	127
Torquay (Merton Lodge)	Miss Brown	5	1	0	250	751	29·567	200	137
D Torquay (Abbey Road)	Henry Brown, Esq.	5	1	0	125	852	33·56	187	138
D Torquay (Lower Warberry)	G. P. Hope, Esq.	5	1	1	220	821	32·33	214	152
D Newton Abbot (The Chestnuts)	E. D. Wylie, Esq.	5	0	5	100	918	36·15	220	151
Newton Abbot (St. Paul's Rd.)	Mr. Underdown*	..	..	..	220	860	33·86	196	..
D Newton Abbot (Seale Hayne Coll.)	C. T. Mackintosh, Esq.	5	0	9	350	888	34·97	186	139
D Teignmouth (Den Gardens)	G. Rossiter, Esq.	8	1	6	20	767	30·20	190	126
Teignmouth (Hazledown Res.)	G. Rossiter, Esq.	8	2	0	425	812	31·96	187	..
Teignmouth (Shaldon Res.)	G. Rossiter, Esq.	5	1	0	218	834	32·83	167	..
Teignmouth (Landscape Res.)	G. Rossiter, Esq.	8	1	0	133	969	38·17	190	..
D Teignmouth (The Shrubbery)	E. A. Norton, Esq.	8	1	0	275	844	33·22	230	147
D Teignmouth (The Hill)	T. F. Sherriff, Esq.	5	1	2	335	767	30·19	173	122
Ilsington	Miss E. Willcocks	5	1	0	650	1371	53·96	226	166
Dawlish (Windward)	G. J. Zambra, Esq.	5	0	10	230	780	30·71	..	..
D Dawlish (Sefton)	late T. H. Mead-Briggs, Esq.	5	0	9	53	772	30·38	186	134
D Dawlish (The Lawn)	S. F. C. Churchward, Esq.	5	1	0	18	801	31·52	198	143
D Bovey Tracey (Hedgebarton)	S. C. Chapman, Esq., C.E.	5	1	0	1137	1591	62·65	228	182
w Ashcombe (Thorns Reservoir)	S. F. C. Churchward, Esq.	5	1	0	550	918	36·15	..	..
D Lustleigh (Rockmead)	Rev. W. A. Jones	5	1	0	300	1303	51·28	224	174
D Moretonhampstead (Bullaton)	S. C. Chapman, Esq., C.E.	8	1	0	928	1268	49·91	237	176
D Moretonhampstead (Mardon)	S. C. Chapman, Esq., C.E.	8	1	0	835	1045	41·12	237	167
North Bovey (Manor House)	Mr. J. G. Laurence	5	1	0	700	1345	52·95	220	176
D Christow (Kennick)	S. C. Chapman, Esq., C.E.	8	1	0	836	1179	46·43	241	169
D Christow (Smithacott)	S. C. Chapman, Esq., C.E.	8	1	0	861	1252	49·29	237	167
D Moretonhampstead (Stinhall)	S. C. Chapman, Esq., C.E.	5	1	6	844	1194	47·01	203	181
M Moretonhampstead (Bickngstne)	S. C. Chapman, Esq., C.E.	8	1	0	1158	1097	43·19	..	..
D Christow (Laployd)	S. C. Chapman, Esq., C.E.	5	1	6	1041	1283	50·51	234	165
D Moretonhampstead Rectory(+A)	Rev. S. D. Dewey	5	1	5	601	1156	45·51	233	168
D Chagford (Thornworthy)	H. B. Varwell, Esq.	5	1	0	1150	1522	59·93	240	194
6.—EXE. 445 sq. mi.									
Exmouth (Douglas Avenue)	Mrs. S. G. Gillum	5	0	10	80	635	24·98	..	..
D Exmouth (Nidderdale)	Mrs. Herbert Stewart	5	1	0	51	660	25·97	207	127
D Exmouth (Manor Grounds)	S. Hutton, Esq., C.E.	5	1	0	13	663	26·10	189	127
Exmouth (Filters, Salterton Rd.)	S. Hutton, Esq., C.E.	5	8	6	195	743	29·26	188	137
Exmouth (Filters, Capel Lane)	S. Hutton, Esq., C.E.	5	8	0	240	684	26·93	179	133
D Kenton	E. J. Pitt, Esq.	5	1	0	85	805	31·71	..	140
D Topsham (Altamira)	Mrs. Wimbush	5	0	9	120	763	30·02	..	..
D Exeter (Hatfield, Longdown)	C. Holman, Esq.	5	0	10	450	887	34·94	197	145
D Aylesbeare (Rosamondford)	A. T. Loram, Esq.	5	0	6	220	789	31·08	..	..
D Exeter (Devon & Exeter Inst.)	J. E. Coombes, Esq.	5	13	7	155	820	32·27	202	140
D Exeter (The Close)	The Ven. Arch. J. N. Leeke	5	1	2	140	840	33·07	199	142
Exeter (The Close)	Rev. Canon D. McLaren	5	1	0	140	823	32·41	191	140
D Exeter (Hele's School)	S. H. Cair, Esq.	8	7	0	137	825	32·47	203	152
D Rockbeare Manor	Lt. Col. H. Spencer Follett	5	1	0	185	790	31·12	198	135
D Broad Clyst (Brockhill)	Mrs. Bayne	5	1	0	80	779	30·65	211	142
Whimble (Ousley)	Rev. A. A. Sanders	5	1	6	200	805	31·70	..	..
D Crediton (Hookway)	A. F. Parbury, Esq.	5	1	0	151	875	34·43	224	161
D Crediton (Ship Hotel)	R. Stanley Clarke, Esq.	8	1	2	150	879	34·62	243	157
D Crediton (Palace Cottage)	Dr. G. Rice	5	2	2	120	897	35·31	228	154
D Silvertown (Killerton)	Mr. J. Wilson	5	1	0	161	778	30·64	154	139
D Crediton (Okefield)	Seymour F. Pope, Esq.	5	0	9	325	828	32·60	227	157
D Coplestone (Coplestone House)	Miss Pope	5	0	11	315	983	38·71	243	171
D Bradninch (Dunmore House)	Miss H. R. Hepburn	5	1	0	300	897	35·32	198	155
D Cullompton	Murray T. Foster, Esq.	5	1	0	202	927	36·47	223	162
D Tiverton (St. Aubyn's Park)	F. C. Fox-Strangways, Esq.	5	1	0	394	1076	42·36	239	170
D Tiverton (St. Peter Street)	Miss Gill	5	6	0	270	1042	41·03	227	166

\* Per Cornwall Rainfall Association.

## DIVISION V.—SOUTH-WESTERN COUNTIES—(con.).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain.		Days with ·01 in. or more.	Days with ·04 in. or more.	
		Diam.	Height Ground	above Sea Level.	1923				
SOUTH DEVONSHIRE—(con.).		in.	ft.	in.	ft.	mm.	in.		
6.—EXE—(con.).									
d Tiverton (Fore Street).....	G. Rossiter, Esq. ....	5	1	3	235	1120	44·10	238	167
d Tiverton (Hartnolls) .....	Maj.-Gen. F. A. Bowles, C.B.	5	1	4	226	1061	41·79	236	170
d Tiverton (Alstree, Halburton)...	Miss M. G. Izat.....	5	1	0	240	1097	43·20	232	174
d Tiverton (Lythecourt) .....	A. L. Sadler, Esq. ....	5	0	8	256	1085	42·72	..	164
d Hemyock (Windlehurst) .....	Sir Arthur Tedder, C.B....	5	1	0	750	1029	40·52	233	169
d Bampton (Castle Grove) .....	Major B. Moutray Read ..	5	1	0	270	1162	45·74	..	..
7.—AXE & C. 237 sq. mi.									
d Budleigh Salterton (Lindenwd)...	Lt.-Col. J. H. Hamersley..	5	1	0	120	731	28·76	182	131
Budleigh Salterton (Squabmoor)...	S. Hutton, Esq., C.E.....	5	1	0	267	763	30·02	..	..
d East Budleigh (Bicton Gards)...	Mr. E. H. High.....	5	1	0	90	759	29·89	191	129
East Budleigh (Bicton Common)...	S. Hutton, Esq., C.E.....	5	1	0	300	781	30·74	..	..
d Sidmouth (Sidmount).....	Miss C. M. Radford.....	5	1	0	149	747	29·40	192	135
d Sidmouth (Sidmount).....	Miss C. M. Radford.....	5	1	0	186	776	30·55	194	134
Sidmouth (Winslade Cottage).....	Miss G. Collins.....	5	1	0	145	800	31·51	..	..
d Sidmouth (Salcombe Regis)...	J. W. B. Unwin, Esq....	5	0	10	340	831	32·71	191	134
d Seaton (The Copse).....	H. J. Roberts, Esq.....	5	1	0	220	873	34·39	205	155
d Lyme Regis (Pinhay).....	Mr. P. K. Kaye.....	5	1	11	465	820	32·30	188	134
d Lyme Regis (Ware).....	A. J. Woodroffe, Esq. ....	5	0	10	318	864	34·01	216	142
d Ottery St. Mary (West Hill)....	B. Stansbury, Esq. ....	5	1	6	340	912	35·90	217	146
d Ottery St. Mary (Broad Street)...	H. D. Badcock, Esq. ....	5	4	0	170	1054	41·49	209	149
d Kilminster (Haddon Corner).....	A. Hitchcock, Esq. ....	5	1	0	400	940	37·02	207	143
d Kilminster (Summerleaze) .....	A. Hitchcock, Esq. ....	5	1	0	82	872	34·34	..	..
d Axminster (Lea Combe House).....	Major A. C. F. Luttrell....	5	2	6	170	963	37·91	..	139
d Honiton (Beech Grove) .....	Major A. T. Baker .....	5	0	10	340	1003	39·47	192	148
d Axminster (Coaxdon Hall).....	Dr. Cecil Woodhouse.....	5	1	0	165	929	36·56	187	132
d Membury (Yarty House).....	Major W. H. Wilkin.....	5	1	0	245	873	34·35	191	134
d Membury (Green Down).....	James Lee, Esq.....	5	1	0	500	988	38·91	179	137
d Stockland (The Library).....	R. T. Watkin-Williams, Esq.	5	3	0	350	1056	41·59	185	159
NORTH DEVONSHIRE. (Area, 898 sq. mi.)									
1.—NORTH COAST STREAMS. 77 sq. mi.									
d Woolacombe (Hotel Grounds).....	R. W. Hansford, Esq. ....	5	1	0	60	861	33·91	229	169
d Morthoe (Twitchen House).....	Col. R. Longstaff, D.S.O. ..	8	1	0	430	1161	45·71	242	194
d Ilfracombe (Reservoir) .....	A. J. Westaway, Esq., C.E.	5	1	0	395	1386	54·57	251	212
d Ilfracombe (Bickleighscombe).....	Mrs. Slade King .....	5	1	0	300	1305	51·36	230	183
d Ilfracombe (Langleigh).....	H. B. Holland, Esq.....	5	0	6	100	1234	48·59	230	183
d Ilfracombe (Ropery Meadow)*.....	A. J. Westaway, Esq., C.E.	5	1	0	74	980	38·59	209	154
d Martinhoe Rectory .....	Rev. R. W. Oldham .....	5	2	3	808	1178	46·39	222	175
d Lynton (Lee Abbey).....	Mr. J. Delbridge.....	5	0	6	320	1223	48·16	..	..
d Lynmouth (Gwynallt).....	Iate A. L. Ford, Esq.....	8	0	8	284	1372	54·02	237	188
2.—TAW. 442 sq. mi.									
d Belstone (Watchet) .....	Miss Wells .....	5	1	0	840	1723	67·83	..	..
d Spreyton (Lyndenes) .....	Lt. Col. J. Simpson.....	5	1	0	655	1171	46·11	..	..
d Chulmleigh (Leigh House).....	Mr. W. Gillies.....	5	1	0	350	1031	40·60	234	180
d Witheridge .....	H. J. Mansfield, Esq.....	5	1	2	600	1218	47·96	203	188
d South Molton (Langdon House).....	H. J. Amy, Esq.....	5	1	0	435	1352	53·24	..	..
d East Anstey (Rhyll Manor).....	Mrs. Hancock.....	5	1	6	850	1357	53·43	219	191
d Filleigh (Castle Hill Gardens).....	The Countess Fortescue....	12	4	0	317	1333	52·50	262	206
d Molland (Green Cottage) .....	S. J. Case, Esq.....	5	1	9	674	1515	59·65	254	212
d Tawstock Court .....	(R) Basil E. Peto, Esq.....	8	1	9	150	1362	53·63	..	..
d Barnstaple (N. Dev. Athenæum).....	Miss E. Young .....	8	1	0	25	1185	46·67	253	198
d Barnstaple (Fort Hill).....	Rev. F. Sterry .....	5	2	3	200	1270	49·99	270	199
d Goodleigh (Willesleigh House).....	Lt.-Col. Montague H. Hall.	5	1	0	375	1351	53·19	254	..
d Braunton .....	A. J. Besly, Esq.....	5	1	0	145	1046	41·19	235	..
d Arlington Court.....	Miss Chichester .....	5	1	0	613	1597	62·89	253	219
d Challacombe.....	A. J. Westaway, Esq., C.E.	5	1	0	815	1840	72·45	232	211
d Georgeham (Spreacombe Manor).....	A. Leigh Barker, Esq.....	5	0	9	340	1147	45·17	242	192

\* Formerly called Ilfracombe (Meteorological Station).

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STATIONS.	AUTHORITIES.	Rain Gauge.				Depth of Rain.		Days with ·01 in. or more.	Days with ·04 in. or more.
		Diam.	Height Ground	above Sea Level.		1923			
NORTH DEVONSHIRE—(con.).		in.	ft.	in.	ft.	mm.	in.		
3.—TORRIDGE. 342 sq. mi.									
D Okehampton (Grammar School)	J. E. Rushworth, Esq.	5	1	0	542	1389	54·67	222	191
D Okehampton (Uplands)	E. P. Burd, Esq.	5	1	0	700	1559	61·38	260	202
D Jacobstowe Rectory	Rev. J. S. Hyson	5	1	0	312	1084	42·67	214	169
D Dolton (Hilliers)	A. Smythies, Esq.	5	1	3	380	1065	41·93	..	..
D Torrington (Enfield)	G. M. Doe, Esq.	5	1	0	337	1111	43·74	237	181
D Torrington (Stevenstone House)	Lt. Col. B. C. James	5	1	0	395	1126	44·33	201	181
D Parkham (Melbury Moor)	F. Harding, Esq.	5	1	0	633	1388	54·66	..	175
D Parkham (Melbury Reservoir)	F. Harding, Esq.	5	1	0	517	1548	60·93	..	182
D Buckland Brewer (The Cottage)	Miss B. G. Rogers	5	0	11	469	1248	49·12	248	193
D Littleham (Orleigh Court)	W. H. Rogers, Esq.	5	1	0	260	1361	53·59	256	201
D Landcross (South Close)	C. R. J. Hibbert, Esq.	5	1	0	100	951	37·42	215	160
D Gammaton Reservoir	R. E. L. Hookway, Esq.	5	0	8	303	854	33·61	249	178
D Bideford (Webbery)	Mrs. C. E. Boyd	5	1	10	355	1064	41·90	235	179
D Bideford (Slade Park)	J. C. T. Heriz-Smith Esq.	5	1	6	198	1008	39·69	..	..
D Westleigh House	Rev. H. G. de C. Stevens	5	1	0	188	1008	39·68	238	175
D Northam (Fairlea)	Col. F. W. Bennet	5	3	0	190	990	38·98	231	164
D Westward Ho! (Bellevue)	A. H. Boyd, Esq.	5	1	0	200	1015	39·96	242	176
D Westward Ho! (Royal Golf Clb)	Major A. Newton-King	5	1	6	10	921	36·24	..	..
D Instow (Green Hills)	Col. F. W. Evatt	5	1	0	105	1016	40·01	..	171
4.—WEST COAST STREAMS. 32 sq. mi.									
D Hartland Abbey	Mr. G. Sleep	5	1	6	222	1005	39·58	199	178
D Clovelly Court	Mr. H. Tuke	5	1	0	360	1374	54·08	236	195
5.—EXE. 5 sq. mi.									
CORNWALL. (Area, 1363 sq. mi.).									
1.—CAMEL & N.W. COAST STREAMS. 458 sq. mi.									
Crowan (Camborne W.W.)	Camborne Water Co.	..	..		511	1042	41·01	230	..
D Hayle (Gwythian Road)	Caldwell Harpur, Esq.	5	0	10	98	1009	39·72	223	171
D Camborne (Roskear)	F. Osborne, Esq.	5	2	0	349	1120	44·08	214	187
D Redruth (Trewirgie)	A. P. Jenkin, Esq.	5	1	0	399	1197	47·14	232	190
D Redruth (Green Lane Nurseries)	F. Sanders, Esq.	5	0	6	270	1108	43·63	..	..
St. Agnes (Church Town)	Dr. W. C. Whitworth	5	5	0	318	848	33·37	231	173
St. Agnes (Trevaunance)	J. Hitchens, Esq.	5	0	7	120	926	36·44	211	170
D Newquay (Tresillian House)	Lt.-Col. E. Gully-Bennet	5	2	0	290	1085	42·70	239	185
D Newquay (Reservoir)	Dr. C. C. Vigurs	5	1	0	214	889	34·99	..	..
D Newquay (Mount Wise)	No. 1. Dr. C. C. Vigurs	5	1	0	190	898	35·37	218	168
D Bodmin (Polgwin)	H. D. Foster, Esq.	5	1	0	400	1375	54·15	237	209
D Bodmin (Castle Hill House)	W. G. Wales, Esq., C.E.	5	1	0	484	1392	54·82	274	202
D Little Petherick (St. Petroc Ho)	G. T. Skilbeck, Esq.	5	1	2	150	934	36·78	197	160
D Wadebridge (Bryn)	late Rev. G. T. Phillips	5	1	6	50	1071	42·17	230	176
D Wadebridge (Trewornan)	Brig.-Gen. L. J. Hext, CMG.	5	1	0	30	1037	40·84	231	180
St. Kew (Skisdon)	Mrs. Braddon	5	1	0	100	1161	45·71	247	191
St. Minver (Treberthick)	A. T. Roseveare, Esq.	9	1	0	140	916	36·07	..	..
Camelford (Stannon Clay Wks.)	E. Leamon, Esq.	8	1	5	800	1766	69·54	250	214
Camelford (Lower Moor Farm)	C. J. Jenkin, Esq.*	5	1	0	905	1850	72·84	240	..
D Bude (School House)	Karl Durston, Esq.	5	1	0	50	914	35·99	239	180
D Bude (Bramble Hill)	J. E. Barclay Bevan, Esq.	5	0	8	100	1008	39·70	257	190
D Morwenstow Vicarage	Rev. H. H. Breton	8	0	10	331	1025	40·37	266	195
D Morwenstow (Touacombe Man.)	W. W. Martyn, Esq.	5	1	0	450	1012	39·86	224	176
2.—FOWEY & S.E. COAST STREAMS. 620 sq. mi.									
Lizard	Miss Jeffreys*	5	1	0	244	845	33·27	..	..
D Ruan Minor	Miss H. F. Shepherd	5	1	0	210	899	35·38	236	170
D Mullion	H. H. Penrose, Esq.	5	0	10	178	830	32·69	206	163
D Porthcurno	F. Sinclair, Esq.	5	1	0	150	929	36·58	265	189
St. Keverne (Lanarth)	P. D. Williams, Esq.	5	1	10	290	1125	44·29	246	190
Helston (Tenderah)	J. Walker Tyacke, Esq.	5	1	2	220	1137	44·77	229	182

\* Per Cornwall Rainfall Association.



## DIVISION V.—SOUTH-WESTERN COUNTIES—(con.).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain. 1923	Days with ·01 in. or more.	Days with ·04 in. or more.	
		Diam.	Height Ground	above Sea Level.				
CORNWALL—(con.).		in.	ft.	in.	ft.	mm.	in.	
2.—FOWEY & S.E. COAST STREAMS.—(con.).								
Constantine (Pons-a-Verran)...	A. Mayne, Esq.*	..	..	60	1077	42·40	241	..
Penzance (Trewidden) .....	Mr. J. H. Murley	5	1	0	1083	42·63	229	175
Penzance (Lower Larrigan) ...	E. T. Gregory, Esq.	5	1	0	1077	42·41	211	..
d Penzance (Morrab Gardens) ...	C. H. Benn, Esq.	5	1	0	1035	40·78	237	179
d Penzance (Hea Moor) .....	Jate F. G. Tupper, Esq.	5	1	0	1233	48·55	..	176
Penzance (Trenwainton House) ..	T. Robins Bolitho, Esq.	10	1	0	1242	48·89	239	195
d Falmouth Observatory ..(+A)	J. B. Phillips, Esq.	5	1	0	1154	45·44	223	181
Falmouth (Trefusis).....	Lt.-Col. The Hon. H. W. F. Trefusis	5	1	3	1017	40·02	217	175
d Penryn (Ashfield) .....	J. G. Stephens, Esq.	5	1	0	1085	42·73	225	174
Devoran .....	Lord Clifden*	5	1	0	1102	43·38	..	..
d Gwennap (Trevince) .....	C. H. Beauchamp, Esq.	8	1	0	1193	46·99	241	186
d St. Day (Council School) .....	R. R. Blewett, Esq.	5	0	9	1325	52·15	226	211
Truro (Killiow) .....	Miss Daubuz	5	1	0	1184	46·60	223	190
d Truro (Tregolls) .....	Miss C. L. Rashleigh	5	1	0	1125	44·27	237	179
d Truro W.W. (Lower Tregurrow) ..	W. J. Lean, Esq.	5	1	0	1163	45·79	220	186
Grampound (Creed) .....	A. P. Jenkin, Esq.*	..	..	130	1096	43·14	232	..
d Fowey .....	C. I. Wellington, Esq.	5	1	0	903	35·55	211	184
d St. Austell (Charlestown Old Vic.) ..	C. A. Battiscombe, Esq.	5	0	8	1134	44·63	204	174
d St. Austell (Trevarna) .....	W. M. Coode, Esq.	5	1	0	1226	48·26	242	187
d Looe (Morval) .....	Capt. A. H. Tremayne, R.N.	5	1	0	1269	49·98	219	183
Looe (Bray) .....	Mrs. G. Sneyd	5	1	0	1133	44·61	246	186
d Lostwithiel (Lanwithan) .....	Miss Foster	5	1	0	1127	44·38	220	172
d Menheniot (Coldrenick).....	Rev. F. E. Trelawny	5	1	0	1325	52·15	208	180
d Liskeard (St. Pinnock Rectory) ..	Rev. S. H. Farwell Roe	5	0	5	1683	66·26	269	210
Liskeard (Trevillis) .....	Miss D. P. Foster	5	1	0	1326	52·19	..	..
St. Clear (Tregarrie).....	Lt.-Col. J. D. A. Roberts	5	1	0	1370	53·93	..	..
3.—TAMAR & C. 279 sq. mi.								
d Devonport (Empacombe).....	J. Sandercock, Esq.	5	1	0	990	38·99	221	165
d Devonport (Cremyll) .....	S. B. Wilcox, Esq.	5	1	4	1072	42·22	228	171
Torpoint (Trethill House) .....	Lt.-Col. J. D. A. Roberts	5	1	6	830	32·67	..	..
Saltash (Pentillie Castle) .....	W. T. Johnson, Esq.*	5	2	4	1410	55·50	235	..
St. Mellion Rectory .....	Rev. Canon F. T. Wintle	5	1	0	1267	49·90	236	179
Callington (Pencrebar) .....	Miss Horndon	5	1	9	1282	50·47	249	188
d Albaston (Nanaïms House) ..	N. R. Rosekilly, Esq.	5	4	0	1168	45·98	219	162
d Launceston (Landue) .....	Miss S. E. Tregoning	5	0	11	1226	48·27	243	187
d Launceston (Hexworthy) .....	R. B. Rogers, Esq.	5	1	0	1271	50·03	235	180
d Altarnon Vicarage.....	Rev. A. H. Thorold	5	1	0	1670	65·74	213	185
d Launceston (Old Tree House) ..	Mrs. Saunders	8	1	6	1280	50·38	232	188
Egloskerry (Tregeare) .....	E. G. B. Lethbridge, Esq.	5	1	0	1339	52·70	..	..
North Tamerton (Davies) .....	Miss M. A. Bray	5	4	0	1080	42·52	219	187
4.—INSULAR—Isles of Scilly. 6 sq. mi.								
d St. Mary's.....	The Meteorological Office.	8	1	0	815	32·08	235	163
d Tresco Abbey.....	Maj. A. A. Dorrien Smith.	8	3	0	813	32·01	257	164
SOMERSETSHIRE. (Area, 1630 sq. mi.).								
1.—LOWER AVON. 300 sq. mi.								
d Wanstrow (The Manor Cottage) ..	P. E. B. Warburton, Esq.	5	1	0	1075	42·33	204	171
d Shepton Mallet (Pondsmead) ..	R. A. Hobhouse, Esq.	8	1	0	1244	48·96	206	179
d Frome W.W. (Egford) .....	L. Slaughter, Esq.	8	2	0	1027	40·43	249	158
d Frome (Orchardcroft) .....	H. G. Chislett, Esq.	5	1	0	868	34·17	195	147
d Frome (Selwood School) .....	Miss A. K. Coombs	5	1	7	992	39·05	240	160
d Mells (Selwood) .....	Miss E. G. Horner	5	1	0	994	39·15	214	143
d Binegar (Gurneyslade) .....	Rev. G. B. Hicks	5	1	0	1232	48·52	220	169
d Stratton-on-Fosse (Downside Ab)	Rev. G. B. Hicks	8	1	0	1117	43·97	216	156
d Orchardleigh Park .....	Major A. C. Duckworth	8	0	11	806	35·26	202	160
d Beckington .....	E. M. Nelson, Esq.	8	1	3	854	33·63	187	158

\* Per Cornwall Rainfall Association.

## DIVISION V.—SOUTH-WESTERN COUNTIES—(con.).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain.		Days with ·01 in. or more.	Days with ·04 in. or more.	
		Diam.	Height Ground	above Sea Level.	1923				
SOMERSETSHIRE—(con.).		in.	ft.	in.	ft.	mm.	in.		
1.—LOWER AVON—(con.).									
d Chewton Mendip (The Priory) . . . . .	The Earl Waldegrave . . . . .	5	1	0	550	1271	50·02	234	175
d Midsomer Norton (Island Ho.) . . . . .	Dr. G. S. Pollard . . . . .	5	1	6	300	1015	39·98	190	159
d Midsomer Norton (Dymboro) . . . . .	Dr. A. Bulleid . . . . .	5	1	0	357	988	38·90	192	150
d Radstock (Frome Hill) . . . . .	C. H. Perry, Esq. . . . .	8	2	6	330	949	37·38	203	152
d Litton (Sherborne Res.) . . . . .	J. A. McPherson, Esq., C.E. . . . .	5	1	0	338	1220	48·04	205	167
d Harptree Hill . . . . .	J. A. McPherson, Esq., C.E. . . . .	8	1	0	784	1248	49·12	..	..
d Hinton Blewett (Shortwood Ho.) . . . . .	L. C. R. Thring, Esq. . . . .	5	1	2	490	1113	43·84	204	160
d Hinton Blewitt Manor . . . . .	Maurice Church, Esq. . . . .	5	0	8	500	1143	45·00	223	161
d Temple Cloud . . . . .	Dr. Theodore Martin . . . . .	5	1	0	340	958	37·71	194	146
d Clutton (Council School) . . . . .	W. J. Pullen, Esq. . . . .	5	1	6	420	1049	41·29	203	156
d Pensford (Sutton Court) . . . . .	Lord Strachie . . . . .	8	1	0	280	1040	40·93	203	161
d Monkton Combe (Crossways) . . . . .	M. J. Lipscomb, Esq. . . . .	5	1	0	180	899	35·39	..	145
d Pensford (Hunstrete House) . . . . .	H. Leyborne Popham, Esq. . . . .	5	0	9	400	932	36·69	208	162
d Chew Magna . . . . .	J. A. McPherson, Esq., C.E. . . . .	5	1	4	180	926	36·44	194	162
d Pensford (Publow School Ho.) . . . . .	A. Hayes, Esq. . . . .	5	1	0	230	942	37·10	207	152
d Bath (Henrietta Park) . . . . .	Bath Corporation . . . . .	5	1	0	67	766	30·17	207	150
d Bath (Combe Lodge) . . . . .	Major T. H. Clark . . . . .	5	1	0	520	849	33·44	179	156
d Bath (Combe Down) . . . . .	Dr. T. F. Vaisey . . . . .	5	0	8	500	936	36·85	176	151
d Bath (Statutory Hospital) . . . . .	Bath Corporation . . . . .	5	1	0	520	829	32·62	170	148
d Bath (Claverton Old Rectory) . . . . .	Rev. V. E. Skrine . . . . .	5	1	1	200	892	35·11	205	158
d Bath (Lansdown Place) . . . . .	Sir Percy K. Stothert, K.B.E. . . . .	5	1	2	410	841	33·13	206	161
d Bath (Charlcombe) . . . . .	J. Dent Young, Esq., C.E. . . . .	8	2	0	325	867	34·15	207	163
d Batheaston Reservoir . . . . .	J. Dent Young, Esq., C.E. . . . .	6	2	0	248	907	35·72	217	165
d Keynsham (Chewton Road) . . . . .	A. E. Stephens, Esq. . . . .	8	2	0	134	778	30·62	..	140
d Bath (Brockham End) . . . . .	Mr. H. Holland . . . . .	..	1	0	710	806	31·72	217	151
d Barrow Gurney Reservoir . . . . .	J. A. McPherson, Esq., C.E. . . . .	5	1	6	300	973	38·31	217	168
d Long Ashton (Research Station) . . . . .	W. H. Neild, Esq. . . . .	8	0	8	162	888	34·96	212	146
d Failand House . . . . .	Miss Agnes Fry . . . . .	5	1	0	385	1017	40·02	207	160
d Pill (Boys' School) . . . . .	D. E. Roberts, Esq. . . . .	5	5	0	50	782	30·77	195	152
d Portishead (West Hill) . . . . .	Rev. Arthur Lewis . . . . .	5	0	10	248	808	31·82	201	148
2.—YEO, AXE & BRUE. 405 sq. mi.									
d Somerton (Butleigh Court) . . . . .	R. Neville Grenville, Esq. . . . .	8	1	2	95	827	32·56	199	157
d Bruton (Pitcombe Vicarage) . . . . .	Rev. F. P. Synge . . . . .	5	3	6	280	815	32·09	227	154
d Bruton (Redlynch Park) . . . . .	W. F. Pepper, Esq. . . . .	5	1	0	390	899	35·40	205	162
d Ditcheat Rectory . . . . .	Rev. H. H. Tripp . . . . .	5	1	0	200	867	34·12	205	154
d Street (Overleigh House) . . . . .	J. B. Clark, Esq. . . . .	5	0	10	100	720	28·33	182	144
d Street (Hind Hayes) . . . . .	Joseph Clark, Esq. . . . .	5	1	6	78	748	29·45	191	138
d Street (Millfield) . . . . .	W. S. Clark, Esq. . . . .	8	1	0	100	787	31·00	187	150
d Glastonbury (St. Michael's) . . . . .	Ven. Archdeacon W. Farrer . . . . .	5	1	0	220	768	30·24	205	146
d Edington . . . . .	Major A. C. F. Luttrell . . . . .	5	2	6	90	761	29·96	216	130
d Shepton Mallet (Pilton) . . . . .	Miss Allen . . . . .	5	1	3	354	1065	41·93	237	173
d Shepton Mallet (Charlton) . . . . .	C. E. Burnell, Esq. . . . .	5	1	0	481	1103	43·44	216	168
d Shepton Mallet (Field House) . . . . .	F. H. Berryman, Esq. . . . .	5	1	0	500	1147	45·17	215	176
d Shepton Mallet (Sewage Farm) . . . . .	Mr. C. Marshman . . . . .	5	0	8	310	974	38·34	198	159
d Doultong Vicarage . . . . .	Rev. H. S. Darbyshire . . . . .	5	1	0	693	1092	42·98	230	171
d Wells (Mental Hospital) . . . . .	J. E. P. Spera, Esq., M.D. . . . .	5	1	2	300	938	36·92	226	157
d Wells (Wookey Hole Paper Mills) . . . . .	W. S. Hodgkinson & Co., Ltd. . . . .	5	2	0	200	905	35·63	..	..
d Burnham (Chalbury) . . . . .	H. A. Smith Spark, Esq. . . . .	5	1	0	20	769	30·29	214	151
d Burnham . . . . .	W. H. Chowins, Esq., C.E. . . . .	8	0	9	24	734	28·89	187	143
d Burnham (Berrow Road) . . . . .	Rev. C. E. B. Frupp . . . . .	5	1	0	10	769	30·28	203	152
d Burnham (Brent Knoll) . . . . .	Miss FitzGerald . . . . .	5	2	0	26	778	30·64	205	145
d Cheddar (Pumping Station) . . . . .	J. A. McPherson, Esq., C.E. . . . .	5	1	0	50	918	36·13	193	155
d Charterhouse . . . . .	J. A. McPherson, Esq., C.E. . . . .	5	1	0	619	1153	45·41	..	..
d Compton Martin . . . . .	J. A. McPherson, Esq., C.E. . . . .	8	1	0	276	1207	47·53	..	..
d Ubley (Rookery Farm) . . . . .	J. A. McPherson, Esq., C.E. . . . .	8	1	0	525	1206	47·47	..	..
d Blagdon (Nordrach-on-Mendip) . . . . .	R. Thurnam, Esq., M.D. . . . .	5	0	5	862	1269	49·96	..	..
d Winscombe (The Down) . . . . .	J. Grubb, Esq. . . . .	5	1	0	295	1004	39·54	215	168
d Banwell (Eversleigh) . . . . .	Dr. Kenneth Anderson . . . . .	5	1	6	50	911	35·87	212	166
d Banwell (Banwell House) . . . . .	Miss M. S. Hewitt . . . . .	5	1	0	50	906	35·66	188	154
d Blagdon Hill . . . . .	J. A. McPherson, Esq., C.E. . . . .	8	1	0	550	1079	42·49	..	..
d Blagdon (Pumping Station) . . . . .	J. A. McPherson, Esq., C.E. . . . .	8	1	0	112	934	36·76	200	157

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STATIONS.	AUTHORITIES.	Rain Gauge.				Depth of Rain.		Days with ·01 in. or more.	Days with ·04 in. or more.
		Diam.	Height Ground	above Sea Level.	1923				
SOMERSETSHIRE—(con.).		in.	ft.	in.	ft.	mm.	in.		
2.—YEO, AXE & BRUE—(con.).									
Blagdon (Coombe Lodge) . . . . .	J. A. McPherson, Esq., C.E.	8	1	0	388	1031	40·58	..	..
Ubley (Pixey Hole) . . . . .	J. A. McPherson, Esq., C.E.	8	1	0	300	919	36·20	..	..
Nempnett (West Town) . . . . .	J. A. McPherson, Esq., C.E.	8	1	0	263	949	37·35	..	..
Burrington (Burrington Links) . . . . .	J. A. McPherson, Esq., C.E.	8	1	0	335	1024	40·33	..	..
Burrington (Langford) . . . . .	Miss M. B. Smith	5	1	8	40	1050	41·33	219	160
Weston-spr-Mare (Clarence Pk.) . . . . .	W. H. Allen, Esq.	5	1	2	29	859	33·82	192	140
Butcombe (Cholwell) . . . . .	J. A. McPherson, Esq., C.E.	8	1	0	370	1196	47·10	..	..
Worle Vicarage . . . . .	Rev. M. I. Holme	5	1	6	150	846	33·31	245	150
Wrington (The Cottage) . . . . .	H. C. Bristowe, Esq., M.D.	5	5	6	100	885	34·84	190	150
Wrington (The Rectory) . . . . .	Rev. G. M. Ashdown	5	5	0	69	957	37·66	199	161
Wrington (West Hay) . . . . .	Miss M. C. Meade-King	5	1	8	98	942	37·10	223	158
Wrington (Yeomans) . . . . .	J. Stuckey, Esq.	5	4	0	135	967	38·06	184	160
Yatton (Chelvey) . . . . .	J. A. McPherson, Esq., C.E.	8	0	8	60	938	36·92	171	157
West Town (Backwell Hill Ho.) . . . . .	W. Garnett, Esq.	8	2	0	490	898	35·37	182	152
West Town (Backwell) . . . . .	Theodore Robinson, Esq.	5	3	6	80	1005	39·55	..	..
Nailsea (The Lawn) . . . . .	E. Armstrong, Esq.	5	3	2	80	935	36·79	..	..
Flax Bourton (The Grange) . . . . .	C. Onslow Master, Esq.	5	1	0	120	810	31·90	163	141
Clevedon (Gas Works) . . . . .	J. Harger Pye, Esq.	5	1	2	22	863	33·98	187	147
Clevedon W. W. (Tickenhm Rd) . . . . .	J. Harger Pye, Esq.	5	1	6	70	827	32·54	202	144
Clevedon (Bowling Green) . . . . .	Major A. B. Trestrail	5	0	11	126	916	36·07	..	139
Clevedon (Mt. Heber Cottage) . . . . .	G. M. S. Farmer, Esq.	5	1	0	144	898	35·37	202	145
3.—PARRETT. 568 sq. mi.									
Crewkerne (The Reservoir) . . . . .	E. H. Munford, Esq.	8	1	0	426	873	34·36	185	134
Crewkerne (Bincombe House) . . . . .	Miss Sparks	5	1	3	293	939	36·96	197	144
Crewkerne (Merefield House) . . . . .	Mrs. Tompsett	8	1	1	231	963	37·93	190	140
Crewkerne (Mark's Barn) . . . . .	Miss V. Blake	8	0	9	260	845	33·28	209	137
Chard (Chaffcombe House) . . . . .	Lt. Col. L. H. Noblett	5	0	11	400	838	32·98	203	126
Combe St. Nicholas . . . . .	Rev. G. de Y. Aldridge	5	2	6	580	1000	39·37	233	159
Coker Court Gardens . . . . .	Mr. T. H. Gilham	5	1	6	250	914	35·98	187	150
West Coker . . . . .	G. F. Deedes, Esq.	5	1	6	265	765	30·11	196	127
Ilminster (Whitelackington Ho.) . . . . .	S. Creed, Esq.	5	3	0	200	904	35·58	186	135
Ilminster (Dillington Park) (R) . . . . .	Mr. W. Goldthorpe	8	3	0	161	901	35·48	195	129
Yeovil (Pen Mill Sewage Wrks) . . . . .	Dr. C. W. Gee	5	1	0	102	820	32·28	236	148
Stoke-under-Ham (The Gables) . . . . .	Miss Gillett	8	1	0	80	853	33·58	172	149
Angersleigh (Leigh Court) . . . . .	A. Eastwood, Esq.	8	1	0	360	921	36·27	203	146
Tintinhull (Manor House) . . . . .	Rev. Dr. S. J. M. Price	5	0	10	145	699	27·50	..	133
Taunton (The Park) . . . . .	Dr. John Allen	5	1	0	71	806	31·75	219	140
Taunton (Holy Trinity School) . . . . .	A. P. Guest, Esq.	5	1	6	71	813	32·00	223	148
Milverton (Spring Grove) . . . . .	Major R. C. Coldwell	5	1	0	449	1013	39·88	224	167
Wiveliscombe (Culverhead) . . . . .	T. R. Marsh, Esq., C.M.G.	5	1	0	450	1134	44·65	198	174
Langport (The Grange) . . . . .	Miss V. M. Page	5	1	0	50	701	27·62	211	140
Langport (Huish Episcopi) . . . . .	Miss A. M. Kelway	8	1	1	30	676	26·61	183	140
N. Cheriton (Maperton House) . . . . .	Mr. W. Smith*	5	1	3	390	937	36·88	190	152
North Cadbury Court . . . . .	Major A. L. Langman	5	1	0	250	836	32·91	205	158
Somerton . . . . .	R. W. Pretor-Pinney, Esq.	5	1	2	121	766	30·14	169	..
Kingston (Caplins) . . . . .	Mr. H. Jones	5	1	0	250	854	33·61	214	149
Aisholt (Timbercombe) . . . . .	Mrs. White	5	1	2	700	829	32·63	203	160
Bagborough Rectory . . . . .	C. Hubert Lance, Esq.	9	1	0	470	945	37·20	232	168
Bridgwater (Blake Gardens) . . . . .	F. Parr, Esq., C.E.	5	3	1	27	747	29·40	186	135
Bridgwater (Wembdon Road) . . . . .	H. Corder, Esq.	5	1	0	30	776	30·56	192	142
Cannington (Ashford) . . . . .	F. Parr, Esq., C.E.	5	1	1	102	820	32·30	192	147
Cannington (Brymore) . . . . .	H. H. P. Bouverie, Esq.	5	2	0	65	871	34·27	197	142
4.—NORTH COAST STREAMS. 158 sq. mi.									
Washford (Croydon Hall) . . . . .	Capt. J. W. Bridges	..	1	8	570	1139	44·86	201	169
Bicknoller (Ford) . . . . .	John Tracey, Esq.	5	1	3	150	916	36·05	213	150
Quantock H. (Erridge Combe) . . . . .	Lord St. Audries	5	1	0	850	1045	41·13	..	..
Bicknoller (Willett) . . . . .	H. C. Venning, Esq.	5	1	0	450	989	38·93	186	152
Williton (The White House) . . . . .	S. L. Rogers, Esq.	5	1	0	98	907	35·71	195	143

\* Per Mid-Wessex Rainfall Association.

## DIVISION V.—SOUTH-WESTERN COUNTIES—(con.).

STATIONS.	AUTHORITIES.	Rain Gauge.				Depth of Rain.		Days with ·01 in. or more.	Days with ·04 in. or more.
		Diam.	Height Ground	above Sea Level.		1923			
SOMERSETSHIRE—(con.).		in.	ft.	in.	ft.	mm.	in.		
4.—NORTH COAST STREAMS—(con.).									
D Quantockshead (St. Audries) ..	Mr. F. S. Hayne .....	5	1	0	264	859	33·82	190	141
Stogursey (Fairfield House)....	Lord St. Audries .....	5	1	0	150	851	33·49	..	..
D Kilve Court .....	J. C. Hurle, Esq. ....	5	1	0	150	855	33·67	213	147
D Dunster (The Schools) .....	E. G. Cantle, Esq. ....	5	1	0	90	967	38·09	206	157
Minehead (Warden Road).....	Mrs. T. Hosegood .....	5	1	6	75	956	37·64	..	..
Porlock (Lynch Mead Allerford) J.	Dyke Acland, Esq. ....	5	1	0	115	992	39·05	240	158
D West Porlock (Underway).....	Gavin Hadden, Esq. ....	5	1	0	80	1273	50·11	221	177
D Culbone (Lillycombe) .....	E. T. Macdermot, Esq. ....	5	1	0	1210	1523	59·96	251	200
5.—EXE. 122 sq. mi.									
D Exbridge .....	T. F. Tracy, Esq. ....	5	1	0	410	1297	51·06	223	187
D Brushford Rectory .....	Rev. B. J. du Boe .....	5	1	0	450	1337	52·63	228	187
D Brushford Nurseries .....	Mr. G. Ruff .....	5	1	2	430	1324	52·11	241	188
D Hawkridge (Liscombe) .....	Mr. E. W. Darby .....	5	3	6	980	1651	64·99	270	209
D Cutcombe (Wheddon Cross) ...	H. H. P. Bouverie, Esq. ....	5	1	2	945	1384	54·49	223	189
Exford (North Ley) .....	F. G. Heal, Esq. ....	5	5	0	1000	1755	69·11	..	..
D Exford (Foxcombe) .....	H. W. Heberden, Esq. ....	5	1	6	1064	1649	64·90	221	194
D Simonsbath .....	A. H. Molland, Esq. ....	5	0	10	1080	1964	77·31	233	204
6.—AXE. 42 sq. mi.									
Tatworth Vicarage .....	Rev. H. Stuart King .....	5	1	3	345	939	36·97	..	142
D Cricket St. Thomas (Cricket Ho.)	Mr. G. F. Richardson ....	5	1	0	444	999	39·35	175	139
D Chard (High Street Council Sch.)	F. Barnard, Esq. ....	5	1	2	425	1014	39·93	207	146
7.—STOUR. 35 sq. mi.									
D Temple Combe Rectory .....	Rev. Prebendary Windsor *	5	0	6	215	922	36·31	205	161
D Temple Combe (Cheriton Ho.) ..	W. Wise, Esq.* .....	..	..	..	..	855	33·68	198	162
D Wincanton (Roundhill Grange)	Maj.-Gen. C. H. P. Ducat ..	5	1	11	375	943	37·14	213	161

## DIVISION VI.—WEST MIDLAND COUNTIES.

## GLOUCESTERSHIRE. (Area, 1243 sq. mi.).

<b>1.—WYE. 50 sq. mi.</b>									
D Chepstow (Castleford) .....	Mrs. W. R. Lysaght .....	5	0	8	146	947	37·28	204	157
D Chepstow (Pen Moel) .....	W. R. Price, Esq. ....	5	1	0	240	968	38·12	203	152
D St. Briavels (St. Briavels House) Surg. Capt. O. W. Andrews, R.N. ....		5	1	0	750	1149	45·23	221	156
Forest of Dean (Mailscoth Ldg.) Office of Woods .....		8	1	0	630	937	36·91	..	..
Forest of Dean (Ruardean H. Lo) Office of Woods .....		8	1	0	932	885	34·85	..	..
D Lydbrook (Viaduct House) .... G. S. Damsell, Esq. ....		5	1	0	95	854	33·63	205	129
<b>2.—SEVERN—Right Bank Tributaries. 176 sq. mi.</b>									
D Coleford (Cannop Colliery) .... J. J. Joynes, Esq. ....		5	10	0	306	905	35·63	195	134
D Cinderford (Belle Vue Road) ... Dr. J. N. Beadles .....		5	1	1	780	958	37·70	210	148
D Westbury-on-Severn (Ninnage L.) Miss Grant .....		5	3	0	122	728	28·65	..	132
Forest of Dean (Edgehills Lodge) Office of Woods .....		8	1	0	914	764	30·08	..	..
D Newent (Clifford Manor) .....	F. F. Grafton, Esq. ....	5	1	5	312	804	31·67	172	140
D Oxenhall (Dymock Woods) ... Office of Woods .....		8	1	0	232	789	31·07	183	127
D Bromsberrow Heath Pump. Stat. W. Osborne Thorp, Esq., C.E. ....		5	1	0	181	729	28·68	165	126
Tewkesbury (Forthampton Ct.) Mr. B. Webster .....		5	1	0	48	741	29·18	197	..
D Tewkesbury (Upper Lode) .... E. J. Bradley, Esq. ....		5	1	0	41	570	22·45	176	130
<b>3.—SEVERN—Left Bank Tributaries. 372 sq. mi.</b>									
D Wickwar .....	F. G. Ansell, Esq. ....	5	1	0	260	811	31·92	163	137
D Thornbury (Thornbury House) .. H. V. Gillett, Esq. ....		5	2	1	110	847	33·33	..	132
Thornbury (Thornbury Park) .. Capt. R. A. Bennett .....		5	1	3	70	823	32·40	172	144
D Falfield (Eastwood Park) .....	A. Lippiatt, Esq. ....	5	1	6	190	800	31·48	..	142
Tortworth Court .....	Mr. J. Banting .....	8	1	0	264	837	32·96	202	150

\* Per Mid-Wessex Rainfall Association.

STATIONS.

AUTHORITIES.

## Rain Gauge.

Diam.	Height Ground	above Sea Level.
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Depth of Rain.

1923

Days with •01 in. or more.	Days with •04 in. or more.
1	1
2	2
3	3
4	4
5	5
6	6
7	7
8	8
9	9
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11	11
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92	92
93	93
94	94
95	95
96	96
97	97
98	98
99	99
100	100

GLOUCESTERSHIRE—(con.).

### 3.—SEVERN—Left Bank Tributaries.—(con.).

Tortworth School .....	E. A. Smith, Esq. ....	5	2	0	264	840	33-07	202	150
Dursley (The Manor) .....	Miss H. M. Hutton .....	5	1	1	274	845	33-26	206	154
Avening House .....	Lady Eleanor Atkinson ..	8	1	3	350	873	34-35	177	139
Berkeley Castle Gardens.....	Mr. T. B. Ashbee .....	5	1	6	60	831	32-71	..	135
Nailsworth (Three Corners)...	F. R. Rushton, Esq.....	5	0	9	325	910	35-81	218	154
Berkeley (Sharpness Docks) ..	F. G. Marling, Esq. ....	5	2	0	50	855	33-65	193	139
Minchinhampton (Rowan Cott)	E. Metcalfe Day, Esq. ....	5	1	0	620	703	27-67	..	..
Minchinhampton (Camp Field)	Piers F. Legh, Esq.....	5	1	6	650	939	36-96	203	153
Minchinhampton (Rectory Cott.)	G.W. Fisher, Esq. ....	5	1	0	610	768	30-24	199	147
Stonehouse (Wycliffe College)	W. A. Sibly, Esq. ....	5	0	6	120	794	31-26	196	132
Bisley (Jaynes Court) .....	Hugh T. Coles, Esq.....	5	0	11	777	883	34-78	216	152
Stroud (Berrimans) .....	E. Armitage, Esq. ....	5	1	0	750	887	34-93	..	..
Stonehouse (Parklands) .....	W. Grey Robinson, Esq....	5	2	6	103	711	27-99	192	134
Whitminster (The Junction) ..	F. A. Jones, Esq., C.E....	5	1	0	33	811	31-93	219	151
Haresfield Court .....	late R. I. Tidswell, Esq....	5	0	10	100	836	32-90	221	132
Harescombe Grange .....	Stamford Hutton, Esq. ....	5	1	0	557	796	31-34	199	141
Quedgeley House .....	late Lt.-Col. Curtis-Hayward	5	1	0	65	732	28-83	171	144
Witcombe Reservoir .....	C. J. Scudamore, Esq. ....	8	3	0	297	836	32-91	178	145
Gloucester (Weston Road).....	Rev. F. H. Fowler .....	5	1	0	56	756	29-76	242	137
Gloucester (The Park) .....	W. E. Deavin, Esq. ....	8	1	3	56	737	29-02	247	139
Gloucester (Northernbay) .....	Harley Butt, Esq. ....	5	1	5	79	687	26-98	195	131
Gloucester (Llanthony Lock) ..	E. J. Bradley, Esq.....	5	1	2	39	669	26-36	..	134
Gloucester (Maiseamore Lock) ..	E. J. Bradley, Esq.....	5	1	1	39	642	25-26	192	130
Badgeworth Court .....	A. J. Stephens, Esq.....	5	1	0	180	735	28-94	..	..
Churchdown (Barrow Hill) ....	Mrs. J. H. Jones .....	5	1	0	225	739	29-11	203	141
Dowdeswell Reservoir .....	J. S. Pickering, Esq., C.E.	5	1	3	357	832	32-75	181	135
Cheltenham (Thirlestane Hill)(R)	J. Player, Esq. ....	8	2	0	240	790	31-09	192	135
Charlton Kings (The Grange) ..	Miss E. M. Heberden .....	5	0	9	300	823	32-41	203	144
Cheltenham (Hewletts Res.) ..	J. S. Pickering, Esq., C.E.	8	1	6	419	775	30-51	201	149
Cheltenham (Sandford Mead) ..	J. S. Pickering, Esq., C.E.	5	2	6	210	759	29-90	185	143
Cheltenham (Kemerton Lodge).	late Rev. Percy Burd ....	5	1	0	211	772	30-38	208	144
Cheltenham (Old Bath Road) ..	F. A. Jones, Esq., C.E. ....	5	1	0	290	761	29-95	195	139
Cheltenham (High Street) .....	Lieut. J. Orgee, D.S.C., R.N.	5	1	0	214	693	27-30	190	132
Cheltenham (Swindon) .....	J. C. M. Stanton, Esq. ....	8	1	2	136	692	27-26	198	135
Tewkesbury Pumping Station ..	J. S. Pickering, Esq., C.E.	5	1	0	47	585	23-05	185	120
Beckford Hall .....	Capt. H. Ashton Case .....	5	1	0	130	690	27-15	..	..

**4.—SEVERN—Upper Avon. 99 sq. mi.**

d	Winchcombe (Sudeley Castle)...	Major J.H.D. Brocklehurst.	5	1	0	357	819	32.26	..	139
d	Broadway (Buckland Manor)...	J. Whiteley, Esq.....	5	1	0	..	758	29.83	172	149
d	Mickleton (Bank House) .....	M. J. Salter, Esq.....	5	1	0	250	713	28.05	193	133

**5.—LOWER AVON & C. 198 sq. mi.**

D	Bath (Monkswood Reservoir) . . .	J. Dent Young, Esq. C.E.	5	2	0	365	812	31-97	206	155
D	Bristol (Telephone Avenue) . . .	J. A. McPherson, Esq., C.E.	5	50	0	80	886	34-89	203	149
D	Bristol (Tyndalls Park Road) . .	Major E. J. Dunscombe, RFA	5	1	4	150	931	36-64	217	152
D	Bristol (Cotham) . . . . .	H. A. Rogers, Esq. . . . .	5	1	6	180	905	35-63	206	146
D	Clifton (Oakfield Road) . . . . .	J. A. McPherson, Esq., C.E.	5	1	0	200	945	37-22	203	151
D	Clifton (Harley Place) . . . . .	Miss Hooper . . . . .	5	1	5	260	951	37-44	224	152
D	Clifton College . . . . .	W. C. Badcock, Esq. . . . .	8	1	2	225	1013	39-87	207	146
D	Clifton (Stoke Bishop) . . . . .	H. L. P. Lowe, Esq. . . . .	8	1	3	243	954	37-57	213	149
D	Bristol (St. Andrew's Park) . . .	H. Vicars Webb, Esq. . . . .	5	1	5	200	916	36-07	218	158
D	Filton . . . . .	F. W. Gayner, Esq. . . . .	5	2	0	202	811	31-93	189	142
D	Winterbourne (Kendleshire) . . .	J. J. Marsh, Esq. . . . .	5	1	0	170	778	30-63	180	129
D	Frampton Cotterell (Park Ho) . .	H. H. Harding, Esq. . . . .	5	1	0	158	770	30-30	202	144
D	Chipping Sodbury (The Ridge). Col.	P. Burges . . . . .	5	1	0	375	820	32-29	215	140
D	Almondsbury (Over Court Park) J.	Cann-Lippincott, Esq. . . .	5	1	0	147	796	31-35	208	146
D	Tetbury (Highgrove Gardens). .	Mr. H. Henderson. . . . .	5	1	0	371	931	36-66	..	149

**6.—THAMES—Right Bank Tributaries. 15 sq. mi.**

## DIVISION VI.—WEST MIDLAND COUNTIES—(con.).

STATIONS	AUTHORITIES.	Rain Gauge.			Depth of Rain. 1923	Days with ·01 in. or more.	Days with ·04 in. or more.		
		Diam.	Height Ground	above Sea Level.					
GLOUCESTERSHIRE—(con.)		in.	ft. in.	ft.	mm.	in.			
7.—THAMES—Windrush & c. 333 sq. mi.									
D Fairford (Dunfield, Kempford)	A. T. Iles, Esq. ....	5	1	0	260	704	27·71	194	144
D Fairford Vicarage. ....	Rev. Canon R. C. S. Jones ..	5	2	9	280	704	27·72	194	149
D Fairford (Draycott) .....	Miss G. Edmonds .....	5	2	0	200	747	29·40	194	148
D Lechlade (St. John's Lock) ....	R. A. Swarbrick, Esq. ....	5	3	2	239	613	24·14	185	136
D Lechlade (Claydon House) ....	T. T. S. Metcalfe, Esq. ....	5	1	0	250	679	26·72	206	150
D Cirencester (Cripps Mead) ....	Mrs. Wilfred Cripps .....	5	0	8	366	820	32·30	206	155
D Cirencester (Dollarward House) (+A)	C. P. Hooker, Esq. ....	5	1	6	366	849	33·41	212	159
D Cirencester (Argyll House) ....	Prof. E. Blundell .....	5	2	6	325	780	30·72	..	..
D Cirencester (Bartonbury) ....	E. C. Rankin, Esq. ....	5	0	9	429	773	30·44	215	148
D Cirencester (Gwynfa) .....	Nigel Woods, Esq. ....	5	1	0	354	814	32·03	214	150
D Rendcomb College .....	C. H. Caulfeild Osborne, Esq.	8	1	0	573	848	33·38	177	148
D Aldsworth. ....	T. Rich, Esq. ....	5	1	6	430	751	29·56	173	142
D Great Barrington .....	H. J. Barrett, Esq. ....	5	1	6	417	729	28·69	179	140
D Northleach (Sherborne House)	Mr. A. Mitchell .....	5	1	0	420	757	29·81	182	156
D Northleach (Leygore Manor) ..	Arthur E. Moss, Esq. ....	5	1	0	650	805	31·70	224	148
D Bourton-on-Water (Burgh Flds)	W. L. Stanton, Esq. ....	5	1	1	430	843	33·18	214	149
D Bourton-on-Water (Eastfield) ..	E. W. Kendall, Esq. ....	5	1	6	434	859	33·80	189	138
D Bourton-on-Water (Chardwar) ..	G. F. Moore, Esq. ....	5	1	6	430	851	33·51	189	139
D Bourton-on-Water Rectory ...	Rev. Canon W. E. White ..	5	0	10	433	855	33·66	172	143
D Stow-on-the-Wold (Icomb Place)	Capt. G. H. Simpson Hayward	8	1	3	500	811	31·92	196	150
D Stow-on-the-Wold (Duncombe) ..	W. T. Arkell, Esq. ....	5	1	0	650	839	33·01	..	..
HEREFORDSHIRE. (Area, 840 sq. mi.)									
1.—WYE. 685 sq. mi.									
D Goodrich Court Gardens. ....	T. Spencer, Esq. ....	5	1	6	200	815	32·09	207	133
D Walford (Hill Court) .....	G. R. Trafford, Esq. ....	5	1	1	161	759	29·90	177	129
D Ross (County Observatory) ...	F. J. Parsons, Esq. ....	5	1	0	224	753	29·67	188	129
D Ross (Birchlea) .....	Miss M. L. Southall .....	5	1	0	210	783	30·83	194	126
D Bridstow (Ashe Leigh) .....	Major W. Stanley R. Cox ..	5	1	0	240	718	28·28	165	128
D Kentchurch Rectory. ....	Rev. R. P. Dansey .....	5	1	0	220	817	32·15	184	136
D Brockhampton Court .....	Lt.-Col. A. W. Foster ....	8	4	0	500	726	28·57	..	..
D Fownhope (Lower House) ....	Miss F. Cresswell .....	5	3	0	200	698	27·48	208	143
D Fownhope (Morney Cross) ....	A. P. Maudslay, Esq., D.Sc.	5	1	0	180	663	26·11	191	122
D Vowchurch (Whitehouse) ....	A. S. Wood, Esq. ....	8	1	0	450	952	37·49	191	..
D Hereford (Belmont Abbey) ....	Rev. John Owen, O.S.B. ...	8	1	0	292	657	25·86	170	122
D Hereford (Barton House) ....	Rev. A. G. Jones .....	8	1	0	179	684	26·93	204	131
D Hereford (Breinton Court) ....	H. A. Wadworth, Esq. ....	5	3	0	238	591	23·25	174	121
D Hereford (Broomy Hill) .....	W. Cooke, Esq. ....	8	1	0	201	645	25·40	168	133
D Hereford (Holmer Hall) .....	Rev. Preb. M. Hopton ...	8	1	3	244	657	25·85	208	136
D Credenhill (Stretton Sugwas) ..	Capt. S. H. Armitage ....	5	1	0	226	664	26·14	198	137
D Credenhill .....	F. E. Whiting, Esq. ....	5	1	5	275	695	27·36	178	144
D Burghill Court .....	Miss E. D. Woodhouse ...	5	1	0	293	563	22·17	192	124
D Ocle Pychard (Ocle Court) ....	G. Creswell, Esq. ....	8	1	2	298	747	29·43	239	140
D Sarnesfield Court. ....	Rev. W. Marshall .....	5	1	0	378	668	26·29	182	128
D Weobley School .....	A. J. Dean, Esq. ....	5	1	0	320	719	28·31	235	139
D Dilwyn (Townsend House) ....	Dr. T. Lambert Hall ....	5	0	8	290	720	28·35	182	132
D Pembridge (Burton Court) ....	Lt.-Col. P. L. Clowes, C.B.	5	1	6	400	753	29·65	194	..
D Bromyard (Dumbleton Cottage)	T. V. Philpott, Esq. ....	5	1	0	393	751	29·56	197	151
D Bromyard (Rowden Abbey) ....	W. Lawrence, Esq. ....	5	1	0	450	802	31·56	189	154
D Bromyard (Buckenhill) .....	Mrs. Phipps .....	8	1	6	410	706	27·81	176	140
D Humber Rectory .....	Rev. B. G. Way .....	5	1	6	450	729	28·72	..	131
D Kington (Montfort House) ....	G. H. Evans, Esq. ....	5	0	6	600	978	38·50?	226	168
D Kington (Sunset) ....	H. Langston, Esq. ....	5	1	6	495	793	31·24	..	..
D Kington (Gravel Hill) .....	late Col. G. F. Pearson ...	5	0	8	535	816	32·12	212	158
D Kimbolton (Grantsfield) .....	J. M. Hutchinson Esq. ...	5	1	0	424	697	27·45	196	139
D Leysters (Rosedale House) ....	E. S. Chattock, Esq. ....	5	0	6	550	759	29·89	227	157
D Eyton (Old Hall) .....	R. H. Evans, Esq. ....	5	0	9	310	730	28·75	190	144

## DIVISION VI.—WEST MIDLAND COUNTIES—(con.).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain.		Days with ·01 in. or more.	Days with ·04 in. or more.	
		Diam.	Height Ground	above Sea Level.	1923				
HEREFORDSHIRE—(con).		in.	ft.	in.	ft.	mm.	in.		
2.—SEVERN—Right Bank Tributaries. 155 sq. mi.									
d Much Marcle (The Mount) . . . . .	Miss A. M. Charles . . . . .	5	0	8	240	688	27·08	176	135
d Ledbury (Underdown) . . . . .	S. H. Bickham, Esq. . . . .	5	1	0	307	732	28·81	196	130
Ledbury (Putley Court) . . . . .	J. Riley, Esq. . . . .	5	1	0	290	780	30·72	184	142
Cradley (Mill Bank) . . . . .	Lt.-Col. E. H. Thurlow . . . . .	5	1	0	320	784	30·85	..	..
Brimfield (The Hall) . . . . .	Lt. A. A. Gatty, Esq. . . . .	5	0	7	240	718	28·26	..	..
d Leintwardine . . . . .	E. Charnock, Esq. . . . .	5	1	6	450	883	34·77	240	160
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	832	32·74	240	203
Overton (Sodylt Hall) . . . . .	W. H. Horsfall, Esq. . . . .	5	1	0	266	846	33·31	..	175
3.—SEVERN—Right Bank Tributaries. 722 sq. mi.									
d Ashford House . . . . .	W. Downes Hall, Esq. . . . .	5	0	5	315	806	31·74	..	160
d Ludlow (Spring Field) . . . . .	A. A. Barnes, Esq., C.E. . . . .	5	1	0	302	701	27·58	210	146
d Ludlow (Spring Field) . . . . .	A. A. Barnes, Esq., C.E. . . . .	5	1	0	301	689	27·13	..	..
d Bromfield (Oakley Park) . . . . .	Mr. J. R. Francis . . . . .	5	1	0	300	792	31·17	212	153
d Bromfield (Warwick House) . . . . .	F. Brayshaw, Esq. . . . .	5	1	0	320	797	31·39	218	156
d Bitterley Rectory . . . . .	Rev. Preb. J. R. Burton . . . . .	5	1	6	509	645	25·39	206	139
Stanton Lacy Vicarage . . . . .	Miss I. Armitage . . . . .	5	0	8	304	751	29·58	197	144
Llantairwaterdine (The Green) . . . . .	Miss M. A. Davies . . . . .	5	1	9	950	955	37·59	..	..
Clun (Trinity Hospital) . . . . .	Rev. H. J. Scott . . . . .	5	1	0	665	914	35·97	210	..
d Craven Arms (Newington Ho.) (R) . . . . .	R. E. Serjeantson, Esq. . . . .	8	1	1	406	627	24·69	187	128
Craven Arms (Culmington Mnr.) . . . . .	T. W. Shaw, Esq. . . . .	5	1	0	590	759	29·90	172	143
d Wistanstow Rectory . . . . .	Rev. W. M. D. La Touche . . . . .	8	1	0	482	742	29·23	213	132
d Burwarton Hall . . . . .	Rt. Hon. Viscount Boyne . . . . .	5	0	10	894	893	35·17	179	158
d Clun Forest (Cwm Ffrydd) . . . . .	Sydney Wilson, Esq. . . . .	5	1	0	1155	1168	45·98	..	..
Lydbury North (Totterton H.) . . . . .	Major W. H. B. Whitaker . . . . .	5	1	6	750	766	30·16	216	155
d Bishops Castle (Castle Street) . . . . .	E. Griffiths, Esq. . . . .	5	2	0	720	831	32·70	214	155
d Bishops Castle (Claremont) . . . . .	Richard Parry, Esq. . . . .	5	1	0	681	867	34·15	202	157
d Bishops Castle Vicarage . . . . .	Rev. G. W. Stewart . . . . .	5	1	6	596	933	36·74	222	155
Bishops Castle (More Rectory) . . . . .	Rev. Ridley Relton . . . . .	5	0	9	600	867	34·14	..	..
d Bishops Castle (Roveries H.) (R) . . . . .	A. H. Sykes, Esq. . . . .	8	4	6	600	905	35·61	..	..
d Church Stretton (Sewage Works) . . . . .	E. J. Marsh, Esq. . . . .	5	1	0	582	1009	39·73	210	184
d Church Stretton (Watling St.) . . . . .	Mr. W. Bowden . . . . .	5	1	3	500	1042	41·03	222	187
d Church Stretton (West Leigh) . . . . .	H. Constantine, Esq. . . . .	5	0	8	700	967	38·08	226	181
d Bridgnorth (Cantreyn) . . . . .	W. Bayliss, Esq. . . . .	5	3	0	290	735	28·95	203	144
d Bridgnorth (Cantreyn) . . . . .	W. Bayliss, Esq. . . . .	5	0	3	288	798	31·40	203	156
d Chirbury (Marrington Hall) . . . . .	Lt. Col. S. D. Price-Davies . . . . .	5	1	0	490	789	31·06	201	151
d Church Preen (Preen Cottage) . . . . .	Mr. J. Hopkins . . . . .	5	1	0	760	753	29·64	191	149
d Church Stretton (Wolstaston) . . . . .	Rev. Alan Clover . . . . .	5	1	0	795	937	36·88	218	171
d Much Wenlock (Willey Park) . . . . .	Col. Lord Forester . . . . .	5	3	0	492	833	32·78	215	151
Dorrington (Netley Hall) . . . . .	Miss Hope-Edwardes . . . . .	5	1	6	351	862	33·95	..	157
Shrewsbury (Beckbury House) . . . . .	G. H. Horsfall, Esq. . . . .	5	0	9	220	570	22·45	199	142
Shrewsbury (Radbrook Hall) . . . . .	D. D. Macpherson, Esq. . . . .	5	0	8	235	639	25·15	228	153
Shrewsbury (Kingsland) . . . . .	E. Oliver, Esq. . . . .	..	..	..	..	699	27·51	..	..
4.—SEVERN—Left Bank Tributaries. 564 sq. mi.									
Bridgnorth (Coton Hall) . . . . .	Lt.-Col. E. M. Wakeman . . . . .	5	1	6	460	742	29·21	199	150
d Shifnal (Hatton Grange) . . . . .	Mr. G. Risebrow . . . . .	5	4	4	262	768	30·25	235	178
d Shifnal (National Schools) . . . . .	T. F. Chard, Esq. . . . .	5	1	5	283	877	34·54	207	156
w Wellington W.W. (Wrekin Res.) . . . . .	G. H. Connor, Esq. . . . .	8	2	6	478	690	27·15	..	..
d Shrewsbury (Coton Hill) . . . . .	Dr. M. Gepp . . . . .	5	0	8	190	595	23·42	209	153
d Shrewsbury (Roden) . . . . .	J. W. Nowell, Esq. . . . .	8	1	2	207	673	26·48	227	148
d Shrewsbury (Fitz Rectory) . . . . .	Rev. W. Brewster . . . . .	5	1	2	238	697	27·43	217	160
d Newport (Aston Hall) . . . . .	Col. R. Leeke . . . . .	5	0	11	280	852	33·56	235	167
d Newport (Agricultural College) . . . . .	C. Crowther, Esq. . . . .	5	1	0	220	732	28·82	232	155
d Newport (Chetwynd Park) . . . . .	Mrs. Burton Borough . . . . .	5	1	0	240	804	31·65	243	168

## DIVISION VI.—WEST MIDLAND COUNTIES—(con.).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain. 1923	Days with ·01 in. or more.	Days with ·04 in. or more.		
		Diam.	Height Ground	above Sea Level.					
SHROPSHIRE.—(con.).		in.	ft.	in.	ft.	mm.	in.		
4.—SEVERN—Left Bank Tributaries.—(con.).									
D Newport (Chetwynd Pk. Gdns.)	Mr. N. Sherwood	5	1	0	250	821	32·31	250	166
D Grinshill (Sansaw Hall Gardens)	Capt. F. B. Bibby	5	0	10	300	750	29·51	224	167
Myddle (Marton Hall)	Major W. S. Gosling	5	0	8	280	764	30·08	203	..
D Cheswardine (Knighton Res.)	H. C. Jones, Esq., C.E.	8	1	0	351	861	33·91	230	177
D Cheswardine Hall	Col. R. C. Donaldson-Hudson	5	1	6	530	841	33·12	202	161
D Oswestry (Mount Res.)	G. W. Lacey, Esq., C.E.	5	1	0	698	964	37·97	238	175
D Oswestry (Council School)	E. Compton, Esq.	5	1	0	450	907	35·73	242	176
D Ellesmere	H. C. Jones, Esq., C.E.	8	1	0	368	757	29·82	..	151
D Norton-in-Hales School	Chas. Chadwick, Esq.	5	1	6	350	946	37·26	236	185
STAFFORDSHIRE. (Area, 1171 sq. mi.)									
1.—MERSEY—Weaver. 50 sq. mi.									
2.—SEVERN—Left Bank Tributaries. 160 sq. mi.									
D Kingswinford (Ashwood P.S.)	F. J. Dixon, Esq., C.E.	5	1	0	207	729	28·69	173	149
D Dudley (Shavers End)	F. J. Dixon, Esq., C.E.	5	1	0	745	724	28·52	211	156
D Wolverhampton (Cophorne Rd)	Kenneth C. Berrington, Esq.	5	0	9	500	747	29·42	197	151
D Wolverhampton (Town Hall)	G. Green, Esq., C.E.	5	15	6	482	781	30·74	198	157
D Wolverhampton (West Park)	Dr. R. H. H. Jolly	5	1	5	430	786	30·94	199	146
D Tettenhall (The Hollies)	R. C. Sikes, Esq., C.E.	5	1	0	355	774	30·46	225	155
D Patshull Park	Earl of Dartmouth, K.C.B.	8	1	3	279	769	30·27	198	148
D Shifnal (Weston Park)	Earl of Bradford	5	1	6	400	1044	41·12?	259	196
D Norbury Junction	H. C. Jones, Esq.	8	1	0	332	849	33·42	231	172
D Market Drayton (Old Springs)	F. E. Harding, Esq.	5	1	3	422	840	33·07	217	163
Maer Hall Gardens	Miss Harrison	8	1	6	390	967	38·05	..	..
Muckleton (Willoughbridge Lo)	M. D. Hill, Esq.	5	0	9	450	845	33·28	241	161
3.—TRENT—Right Bank Tributaries. 518 sq. mi.									
D West Bromwich	(+A) A. D. Greatorex, Esq., C.E.	8	1	7	543	774	30·47	196	146
D Wednesbury (Ocker Hill)	H. K. S. Woodhouse, Esq., C.E.	5	1	0	476	761	29·96	206	155
D Walsall (Bescot Sewage Farm)	J. Taylor, Esq., C.E.	8	0	11	376	813	32·01	229	163
D Walsall (Wednesbury Sew. Wks)	G. Wicks, Esq.	5	2	8	381	713	28·06	208	144
D Bilston (The Lunt Outfall)	Edgar Willan, Esq., C.E.	8	1	0	423	722	28·43	208	146
D Aldridge (Bourne Vale)	F. J. Dixon, Esq., C.E.	5	1	0	419	788	31·04	198	154
D Bloxwich (Sneyd Reservoir)	H. K. S. Woodhouse, Esq., C.E.	5	1	0	507	789	31·06	205	157
D Brownhills	S. Harrison, Esq., C.E.	8	1	2	492	763	30·06	208	158
D Brewood (Slade Heath P.S.)	F. J. Dixon, Esq., C.E.	5	1	0	340	815	32·07	201	150
D Hammerwich (Cannock Ch. Res.)	H. K. S. Woodhouse, Esq., C.E.	5	1	0	475	812	31·97	214	166
D Brewood (Belvide Reservoir)	H. C. Jones, Esq., C.E.	5	1	0	367	791	31·13	206	151
D Lichfield (St. John Street)	Dr. F. M. Rowland, C.B.E.	5	1	0	269	806	31·75	222	144
D Hednesford (Scout House)	F. J. Dixon, Esq., C.E.	5	1	0	750	701	27·59	200	127
D Rugeley (Longdon)	F. J. Dixon, Esq., C.E.	5	1	0	413	867	34·15	175	154
D Lichfield (Hanch Reservoir)	F. J. Dixon, Esq., C.E.	5	1	0	259	782	30·79	206	147
D Rugeley (Brindley Bank)	F. J. Dixon, Esq., C.E.	5	1	0	254	908	35·76	199	152
D Milford Waterworks	W. Plant, Esq., C.E.	5	1	0	246	867	34·13	210	156
D Shugborough	The Earl of Lichfield	5	1	9	260	974	38·36	190	166
D Stafford (Rising Brook)	W. Fred. Wright, Esq.	5	1	0	273	840	33·08	222	152
D Stafford (Corporation Depot)	W. Plant, Esq., C.E.	5	1	6	249	848	33·39	213	158
M Stafford (West Bank, Doxey)	Leslie Wilson, Esq.	5	1	0	280	812	31·96	..	..
D Eccleshall (Johnson Hall)	Major W. Moat	5	1	2	400	844	33·22	213	163
D Stone (Meaford Hall)	Lt. Col. W. S. W. Parker Jervis	5	0	9	325	961	37·84	241	175
D Standon (Hatton W.W.)	R. C. Frain, Esq., C.E.	5	1	8	355	934	36·78	206	172
4.—TRENT—Left Bank Tributaries. 193 sq. mi.									
Burton (Hoar Cross)	F. W. Lycett, Esq.	8	1	0	400	946	37·24	182	..
D Burton Reservoir	F. J. Dixon, Esq., C.E.	5	1	0	309	743	29·25	191	146
D Burton (Borough Hospital)	Dr. J. M. Cowie	8	1	6	220	738	29·07	204	135
D Burton (Shobnall)	Messrs. Bass & Co. Ltd.	5	5	6	157	656	25·83	200	138
D Stone (Alleyne's Grammar Sch.)	H. Malcolm Fraser, Esq.	5	1	6	415	916	36·05	231	166
D Stone (Idlerocks)	Mrs. Wedgwood	5	1	0	740	1013	39·87	222	176
D Longton (The Meir)	R. C. Frain, Esq., C.E.	5	1	0	617	968	38·11	267	166



## DIVISION VI.—WEST MIDLAND COUNTIES—(con.).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain.		Days with ·01 in. or more.	Days with ·04 in. or more.	
		Diam.	Height Ground	above Sea Level.	1923				
STAFFORDSHIRE—(con.).		in	ft.	in.	ft.	mm.	in.		
5.—TRENT—Dove. 250 sq. mi.									
D Tean (The Heath House) . . . . .	Lt.-Col. B. H. Philips, C.M.G.	5	1	0	647	1038	40·87	226	164
D Rocester (Dove Leys) . . . . .	Lt. Col. Sir G. P. Heywood	5	1	6	350	1028	40·46	207	168
D Oakamoor (Lightoaks) . . . . .	M. A. Bolton, Esq.	5	1	6	650	1093	43·03	221	176
D Ashbourne (Mayfield Hse.) (+A) . . . . .	Graham C. Lawson, Esq.	8	1	0	374	1013	39·86	219	167
D Mayfield (Doveside) . . . . .	Mr. T. Bridge	8	1	0	421	1010	39·75	220	165
D Alstonfield Vicarage . . . . .	Rev. A. E. Brown	5	1	1	905	1165	45·86	271	183
D Alstonfield (The Manor) . . . . .	B. R. S. Pemberton, Esq.	5	1	0	912	1217	47·93	255	182
D Leek (Wall Grange) . . . . .	R. C. Frain, Esq., C.E.	5	1	0	457	1043	41·05	219	178
D Leek (Hillesdon) . . . . .	A. Y. Worthington, Esq.	5	1	0	750	1099	43·25	229	191
D Leek (Haregate) . . . . .	Mr. G. Sweetmore	5	0	9	680	1120	44·10	240	179
WORCESTERSHIRE. (Area, 751 sq. mi.).									
1.—SEVERN—Right Bank Tributaries. 231 sq. mi.									
D Redmarley (Haselden) . . . . .	Miss F. L. Newbury	5	0	5	280	690	27·16	..	137
D Upton-on-Severn (Willow Bank) . . . . .	J. Selwyn Cowley, Esq.	5	1	0	46	735	28·93	201	143
D Upton-on-Severn (The Eades) . . . . .	Lt. Col. E. W. Tennant	5	0	9	100	715	28·17	213	135
D Malvern (British Camp Res.) . . . . .	W. Osborne Thorp, Esq., C.E.	5	1	0	677	710	27·96	178	131
D Malvern (Church Street) . . . . .	W. Osborne Thorp, Esq., C.E.	5	1	0	350	813	32·02	195	155
D Malvern (Belle Vue House)* . . . . .	A. Mander, Esq.	5	4	0	520	804	31·65	200	142
D Malvern (Free Library) . . . . .	E. W. Harris, Esq.	5	1	0	377	794	31·26	210	143
D Malvern (Clarence Road) . . . . .	S. Bottomley, Esq.	5	1	0	300	752	29·62	220	145
D Malvern (Hornay Road) . . . . .	Rev. T. Wolseley Lewis	5	1	0	498	782	30·78	199	136
D West Malvern . . . . .	W. Osborne Thorp, Esq., C.E.	5	1	0	832	772	30·40	189	140
D Knightwick Sanatorium . . . . .	H. Gordon-Smith, Esq.	5	1	0	300	699	27·52	189	144
D Worcester (Diglis Lock) . . . . .	E. J. Bradley, Esq.	5	1	0	49	667	26·27	217	125
D Worcester (St. John's School) . . . . .	E. R. Bowen, Esq.	5	1	0	82	686	27·02	179	132
D Martley Rectory . . . . .	Rev. J. F. Hastings	5	1	0	220	730	28·73	208	152
D Ombersley (Holt Lock) . . . . .	E. J. Bradley, Esq.	5	1	1	55	648	25·52	203	138
D Shelsley Grange . . . . .	Lt. A. G. Burney, Esq.	5	1	0	350	699	27·52	209	147
D Stourport (Astley Town) . . . . .	J. Armytage Batley, Esq.	5	0	6	175	697	27·44	189	138
D Rochford Rectory . . . . .	Rev. Allan Ellison	5	1	0	315	788	31·02	196	149
D Stockton-on-Teme (Eardiston) . . . . .	Miss M. Wallace	5	0	5	200	782	30·77	183	138
D Bewdley (Winterdyne) . . . . .	Miss K. M. Sturt	5	1	0	175	695	27·37	182	132
2.—SEVERN—Left Bank Tributaries. 194 sq. mi.									
D Earl's Croom (Levant Lodge) . . . . .	F. W. Burnett, Esq.	5	2	0	110	746	29·37	188	143
D Kempsey (Napleton Ho.) . . . . .	Major H. Berkeley Hill	5	1	3	100	708	27·87	171	130
D Kempsey (The Lodge) . . . . .	Mrs. Isaac	5	1	0	80	724	28·50	163	129
D Worcester (London Road) . . . . .	Mrs. Power	5	1	0	150	690	27·16	217	..
D Worcester (Water Works) . . . . .	T. Caink, Esq., C.E.	5	1	0	52	679	26·75	191	129
D Worcester (Barbourne) . . . . .	B. Brotherton, Esq.	5	1	0	92	707	27·83	199	143
D Worcester (Bever Lock) . . . . .	E. J. Bradley, Esq.	5	1	1	52	664	26·14	182	143
D Droitwich (Friar Street Depot) . . . . .	H. Hulse, Esq., C.E.	12	4	0	98	701	27·58	209	160
D Bromsgrove (Tardebigge Res.) . . . . .	F. A. Jones, Esq., C.E.	5	4	6	455	766	30·14	215	152
D Barnt Green (Upwood) . . . . .	Miss M. Gibbins	5	0	9	650	727	28·62	207	138
D Stourport (Lincombe Lock) . . . . .	E. J. Bradley, Esq.	5	1	0	62	709	27·90	192	164
D Bewdley (C.E. School) . . . . .	J. Bates, Esq.	8	1	0	80	782	30·77	185	141
D Kidderminster (Brinton Park) . . . . .	J. T. Cowderoy, Esq.	5	1	0	160	669	26·33	198	138
D Kidderminster (Park Hall) . . . . .	G. E. Wilson, Esq.	5	1	0	200	733	28·87	..	143
D Bewdley (Elan Aqueduct) . . . . .	F. W. Macaulay, Esq., C.E.	5	1	0	91	737	29·02	209	144
D Halesowen (Romsley) . . . . .	F. J. Dixon, Esq., C.E.	5	1	0	614	885	34·86	192	158
D Pedmore (The Dene) . . . . .	T. Grazebrook, Esq.	5	0	6	340	760	29·93	184	139
D Stourbridge (Pumping Station) . . . . .	G. P. Deeley, Esq.	8	1	0	215	727	28·61	201	144
D Netherton (Lodge Farm Res.) . . . . .	H. K. S. Woodhouse, Esq., C.E.	5	1	0	445	685	26·97	197	141
D Dudley (Borough Cemetery) . . . . .	F. H. Gibbons, Esq., C.E.	5	1	3	591	663	26·10	..	..
D Dudley (Trindle House) . . . . .	S. Staffs. Drainage Comm.	8	1	0	575	956	37·65	..	..
3.—SEVERN—Upper Avon. 260 sq. mi.									
D Blockley (Upton Wold) . . . . .	E. W. Arkell, Esq.	5	1	0	800	894	35·20	205	156
D Bredon (The Croft) . . . . .	Jasper Lambert, Esq.	5	1	1	120	704	27·71	202	142
D Shipston (Tidmington House) . . . . .	Miss Staunton	5	1	0	231	726	28·57	..	..

## DIVISION VI.—WEST MIDLAND COUNTIES—(con.).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain.		Days with ·01 in. or more.	Days with ·04 in. or more.
		Diam.	Height Ground	above Sea Level.	1923			
WORCESTERSHIRE—(con.).		in.	ft. in.	ft.	mm.	in.		
3.—SEVERN—Upper Avon—(con.).								
D Evesham (Bengeworth) . . . . .	Messrs. Ross Bros., Ltd. . .	5	1 0	128	636	25·05	188	130
D Evesham (Lansdowne) . . . . .	late R. Burlingham, Esq. . .	5	5 0	108	721	28·38	165	132
D Evesham (Sewage Works) . . . . .	L. Abbott, Esq. . . . .	8	3 0	86	671	26·41	204	139
D Evesham (Great Hampton) . . . . .	H. C. Boutflower, Esq. . . .	5	1 0	130	688	27·09	169	123
D Evesham (Green Hill) . . . . .	H. B. Pollard, Esq. . . . .	5	1 0	..	645	25·38	183	131
D Fladbury Rectory . . . . .	Rev. F. R. Lawson . . . . .	5	4 4	70	651	25·65	213	134
d Pinvin (The Nurseries) . . . . .	G. H. Channell, Esq. . . . .	5	2 0	118	715	28·13	..	..
D Shipston (Cookhill Co. School) . . . . .	T. Barber, Esq. . . . .	5	1 0	400	725	28·55	189	..
D Redditch (Hewell Gardens) . . . . .	Mr. F. Molyneux . . . . .	5	1 0	469	837	32·94	187	157
D Alvechurch (Bordesley Hall) . . . . .	A. H. Wiggin, Esq. . . . .	12	4 0	490	823	32·39	194	158
D Alvechurch (High Croft) . . . . .	D. B. Grubb, Esq. . . . .	5	1 0	580	843	33·19	187	148
D Alvechurch (Fairfield) . . . . .	D. McMichael, Esq. . . . .	5	1 0	400	875	34·43	191	158
D Bromsgrove (Lower Bittal Res.) . . . . .	F. A. Jones, Esq., C.E. . .	5	3 0	457	818	32·19	229	155
4.—THAMES—Windrush & c. 10 sq. mi.								
5.—TRENT—Right Bank Tributaries. 56 sq. mi.								
D Halesowen (Frankley) . . . . .	F. W. Macaulay, Esq., C.E. .	5	0 10	570	890	35·05	218	166
WARWICKSHIRE. (Area, 902 sq. mi.).								
1.—SEVERN—Upper Avon. 603 sq. mi.								
D Long Compton (Weston Park) . . . . .	H. A. Warriner, Esq. . . . .	8	3 0	510	667	26·27	160	124
D Shipston-on-Stour (Cherington) . . . . .	L. G. Slade, Esq. . . . .	8	1 2	300	707	27·84	154	129
D Stratford-on-Avon (Milcote) . . . . .	F. W. Jones, Esq., C.E. . .	5	1 6	122	671	26·41	163	128
D Stratford-on-Avon (Avonfield) . . . . .	G. W. Everard, Esq. . . . .	5	1 0	120	661	26·02	182	..
D Stratford-on-Avon (Shottery H.) . . . . .	R. C. Carter, Esq. . . . .	5	0 8	140	636	25·05	172	129
d Alcester (Ragley Hall) . . . . .	Mr. C. Harding . . . . .	5	1 0	270	676	26·62	..	140
D Ashorne (Victoria Cottage) . . . . .	Mr. G. T. Osborn . . . . .	5	1 0	160	657	25·88	..	..
D Stratford-on-Avon (Snitterfield) . . . . .	F. W. Jones, Esq., C.E. . .	5	1 6	274	677	26·67	182	138
D Southam (Stockton House) . . . . .	G. B. Blyth, Esq. . . . .	6	1 4	394	595	23·43	193	118
D Warwick Castle Gardens . . . . .	Mr. H. F. Smale . . . . .	5	1 0	197	693	27·29	213	141
D Leamington (Pump Room Gdns.) . . . . .	H. Gibbins Ward, Esq. . .	8	0 9	165	623	24·51	172	135
D Willoughby Vicarage . . . . .	Rev. H. Trethewy . . . . .	5	1 0	300	685	26·98	201	140
D Henley-in-Arden (Hillfield) . . . . .	W. E. Milner, Esq. . . . .	5	1 0	450	694	27·31	197	139
D Lapworth Rectory . . . . .	Lendon Bell, Esq. . . . .	5	0 11	436	731	28·78	183	135
D Dunchurch Lodge Gardens . . . . .	Mr. W. Lavender . . . . .	5	1 0	380	686	27·00	178	133
D Rugby (Bilton Grange) . . . . .	J. S. Buckby, Esq. . . . .	5	1 0	400	592	23·32	156	118
D Rugby (Caldecott) . . . . .	R. Broxton, Esq. . . . .	5	1 0	390	647	25·49	174	126
D Ryton-on-Dunsmore (Ryton Ho) . . . . .	Charles Browett, Esq. . . .	5	1 2	260	741	29·16	178	138
D Coventry (Radcliffe Road) . . . . .	J. B. Morris, Esq. . . . .	5	1 0	339	719	28·30	204	142
D Coventry (City Hospital) . . . . .	E. H. Snell, Esq., M.D. . .	8	1 0	271	697	27·45	194	139
D Coventry (Keresley Grange) . . . . .	Miss H. Rotherham . . . .	5	0 10	413	763	30·04	237	154
2.—THAMES—Windrush & c. 2 sq. mi.								
3.—THAMES—Cherwell. 15 sq. mi.								
D Farnborough . . . . .	Miss C. A. Prater . . . . .	5	1 0	520	829	32·62	200	147
4.—TRENT—Right Bank Tributaries. 282 sq. mi.								
D Northfield (West Heath House) . . . . .	J. B. Shewell, Esq. . . . .	5	1 0	590	825	32·50	196	148
D Solihull (Marsh Cottage) . . . . .	Ivo L. Currall, Esq. . . . .	5	1 0	420	726	28·57	215	142
D Selly Oak (Bourneville) . . . . .	Messrs. Cadbury Bros., Ltd. .	5	1 0	432	827	32·55	221	150
d Selly Oak (South Hill) . . . . .	W. Littleboy, Esq. . . . .	5	0 9	460	781	30·73	..	142
D Selly Oak (Lodge Hill Cem.) . . . . .	Mr. W. Garden . . . . .	5	1 2	540	851	33·51	..	..
D Olton (Richmond Road) . . . . .	G. F. Lyndon, Esq. . . . .	5	1 0	400	813	32·00	213	147
D Moseley (Prospect Road) . . . . .	Rev. F. Oscar Lane . . . .	5	1 0	550	781	30·73	186	143
D Moseley (Highfield Road) . . . . .	J. Newland Brown, Esq. . .	8	1 9	550	827	32·54	211	154
D Moseley (Russell Road) . . . . .	Ralph Priestman, Esq. . . .	5	1 6	429	839	33·05	213	155
D Birmingham (Sparkhill) . . . . .	D. H. Owen, Esq. . . . .	5	1 0	426	850	33·47	209	147
D Birmingham (Edgbaston) . . . . .	A. J. Kelley, Esq. . . . .	8	1 6	525	807	31·79	210	147
M Birmingham (The Crescent) . . . . .	J. J. Gilbert, Esq. . . . .	5	7 0	480	864	34·02	..	..
D Birmingham (Erdington) . . . . .	F. W. Macaulay, Esq., C.E. .	5	1 2	472	697	27·43	210	140
D Birm. (Erdington, Orphanage Rd.) . . . . .	M. H. Mold, Esq. . . . .	5	3 0	426	1230	48·43	204	160
D Minworth Greaves . . . . .	Birmingham Drainage Bd. .	8	0 6	259	685	26·97	205	141
D Whitacre (Birmingham W.W.) . . . . .	F. W. Macaulay, Esq., C.E. .	5	1 0	269	737	29·00	201	139
D Sutton Coldfield (The Park) . . . . .	Mr. H. Harland . . . . .	5	1 0	370	754	29·69	198	151

## DIVISION VII.—NORTH MIDLAND COUNTIES.

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain. 1923	Days with ·01 in. or more.	Days with ·04 in. or more.		
		Diam.	Height Ground	above Sea Level.					
LEICESTERSHIRE. (Area, 824 sq. mi.).		in.	ft.	in.	ft.	mm.	in.		
1.—SEVERN—Upper Avon. 41 sq. mi.									
d Welford (The Reservoir) . . . . .	T. W. Millner, Esq. . . . .	5	1	6	430	724	28·52	209	147
2.—WELLAND. 96 sq. mi.									
d Market Harborough (Rose Hill) . . . . .	G. O. Nicholson, Esq. . . . .	5	1	0	350	705	27·77	169	135
d East Langton Grange . . . . .	J. W. Logan, Esq., M.P. . . . .	5	1	0	300	674	26·52	..	..
d Kibworth Beauchamp . . . . .	E. V. Phillips, Esq. . . . .	5	2	6	390	743	29·24	195	132
Hallaton Hall . . . . .	Mr. T. Beers . . . . .	8	1	3	366	636	25·04	..	..
Horninghold House . . . . .	Mr. B. Inchley . . . . .	5	1	6	380	615	24·21	..	..
d Knossington Rectory . . . . .	Rev. G. G. Wilkinson . . . . .	5	1	0	590	763	30·06	182	140
3.—WITHAM. 7 sq. mi.									
4.—TRENT—Right Bank Tributaries. 680 sq. mi.									
d Wistow Hall Gardens . . . . .	The Lord Cottesloe . . . . .	5	1	0	309	656	25·83	..	128
d Countesthorpe (Wigston Sew Fm.) . . . . .	W. G. J. Clark, Esq., C.E. . . . .	8	0	9	257	672	26·47	229	134
d Leicester (Stoughton Drive) . . . . .	Theodore B. Ellis, Esq. . . . .	5	0	6	315	597	23·50	191	129
d Leicester (Town Hall Square) . . . . .	(+A) E. G. Mawbey, Esq., C.E. . . . .	5	0	6	212	614	24·18	191	125
d Leicester (Westcotes Drive) . . . . .	C. Modlen, Esq. . . . .	5	0	11	200	611	24·06	191	124
d Market Bosworth (Osbaston Hall) . . . . .	Sir Thomas Cope, Bart. . . . .	8	1	0	393	715	28·17	223	152
d Leicester City Mental Hosp. . . . .	S. C. Leak, Esq. . . . .	8	1	0	266	636	25·03	201	132
d Leicester (Gilroes Cemetery) . . . . .	E. G. Mawbey, Esq., C.E. . . . .	5	1	0	285	702	27·65	198	139
d Thornton Reservoir . . . . .	G. T. Edwards, Esq., C.E. . . . .	8	1	2	371	745	29·34	192	155
d Cropstone (Bradgate Res.) . . . . .	G. T. Edwards, Esq., C.E. . . . .	8	1	0	246	805	31·71	208	164
d Barkby Hall . . . . .	Victor R. Pochin, Esq. . . . .	5	0	6	227	673	26·51	193	135
d Swithland (The Brand) . . . . .	G. T. Edwards, Esq., C.E. . . . .	8	1	0	172	740	29·12	192	144
d Ratcliffe-on-Wreake College . . . . .	R. L. Moiser, Esq. . . . .	5	1	0	300	668	26·30	171	120
d Barrow-upon-Soar (The Mount) . . . . .	Mrs. C. Stuart Thomson . . . . .	5	1	6	..	674	26·53	171	134
d Hoby (The Grange) . . . . .	A. A. Ironside, Esq. . . . .	5	1	0	241	612	24·08	194	124
d Asfordby Rectory . . . . .	Rev. W. R. Finch . . . . .	5	0	11	212	607	23·89	180	136
d Asfordby (Ironworks) . . . . .	The Stanton Ironw'ks Co. Ltd. . . . .	5	1	0	300	612	24·11	..	121
d Melton Mowbray (White Lodge) . . . . .	R. Barker, Esq. . . . .	8	1	6	236	652	25·66	199	128
d Melton Mowbray . . . . .	Hon. Gerald Walsh . . . . .	5	1	0	345	638	25·10	196	132
d Charnwood For. (Blackbrook R) . . . . .	A. H. Walker, Esq., C.E. . . . .	5	1	0	379	715	28·14	211	157
d Loughborough (Nan Pantan Res) . . . . .	A. H. Walker, Esq., C.E. . . . .	8	1	0	269	751	29·55	204	144
Loughborough (The Widenings) . . . . .	Adrian Young, Esq. . . . .	5	0	7	197	679	26·72	214	142
d Loughborough (Sewage Farm) . . . . .	A. H. Walker, Esq., C.E. . . . .	8	1	0	134	606	23·87	..	123
d Burton-on-the-Wolds (Burtn H.) . . . . .	Earl of Huntingdon . . . . .	5	1	0	270	676	26·60	..	133
d Prestwold Hall . . . . .	Mr. W. Coe . . . . .	8	1	0	209	717	28·21	193	140
d Croxton Kerrial School . . . . .	C. J. Prowse, Esq. . . . .	5	1	0	480	634	24·96	174	117
d Belvoir Castle Gardens . . . . .	The Duke of Rutland, K.G. . . . .	8	1	0	259	671	26·40	181	126
RUTLAND. (Area, 152 sq. mi.).									
1.—WELLAND. 125 sq. mi.									
d Uppingham (Farleigh) . . . . .	D. J. Walters, Esq. . . . .	5	0	8	503	653	25·73	186	129
d Uppingham (Ridlington) . . . . .	N. W. Wortley, Esq. . . . .	5	4	7	527	676	26·62	186	140
2.—WITHAM. 5 sq. mi.									
3.—TRENT—Right Bank Tributaries. 22 sq. mi.									
LINCOLNSHIRE. (Area, 2646 sq. mi.).									
1.—NENE. 100 sq. mi.									
d Tydd (North Level Sluice) . . . . .	Mr. S. Fovargue . . . . .	5	3	0	10	630	24·82	154	111
d Sutton Bridge (The Grange) . . . . .	Major A. N. Spencer . . . . .	5	0	9	14	603	23·74	..	..
d Long Sutton (Lutton Lodge) . . . . .	Mrs. T. A. Dring . . . . .	5	2	2	20	559	22·02	175	125
2.—WELLAND. 341 sq. mi.									
d Crowland (Bank House) . . . . .	J. Goodacre, Esq. . . . .	5	6	0	10	561	22·08	..	..
d Market Deeping (Wilsthorpe) . . . . .	W. H. A. Court, Esq., C.E. . . . .	8	3	10	55	514	20·23	165	111
Holywell Hall . . . . .	Lt.-Col. A. A. H. Reynardson . . . . .	5	0	9	137	630	24·82	191	127
d Bourne (Secondary School) . . . . .	L. Davies-Shiel, Esq. . . . .	5	1	0	40	579	22·81	181	123
d Bourne (Guthram) . . . . .	F. S. Robins, Esq., C.E. . . . .	8	1	6	19	553	21·76	144	108
d Bourne (Edenham School) . . . . .	O. Davies, Esq. . . . .	5	1	0	115	618	24·34	168	118
d Spalding (Pode Hole) . . . . .	H. Bain, Esq. . . . .	8	1	3	12	581	22·89	213	124

## DIVISION VII.—NORTH MIDLAND COUNTIES—(con.).

STATIONS.	AUTHORITIES.	Rain Gauge.				Depth of Rain.		Days with ·01 in. or more.	Days with ·04 in. or more.
		Diam.	Height Ground	above Sea Level.		1923			
LINCOLNSHIRE—(con.).		in.	ft.	in.	ft.	mm.	in.		
3.—WITHAM & C. 1085 sq. mi.									
d Stainby Rectory .....	Rev. W. L. de B. Thorold	4	0	9	496	681	26·82	..	125
d Stroxtun Rectory .....	Rev. S. C. Wood	5	0	10	350	656	25·83	..	..
d Denton Manor .....	Sir C. G. E. Welby, Bt., C.B.	5	1	0	310	655	25·80	207	138
d Grantham (Saltersford) .....	H. Preston, Esq.	5	0	6	188	652	25·69	192	135
d Grantham (Guildhall) .....	G. A. Ballard, Esq., C.E.	5	13	6	202	625	24·60	189	134
d Boston (Black Sluice, Skirbeck) ..	F. S. Robins, Esq., C.E.	8	1	3	11	613	24·13	197	133
d Boston (Grand Sluice) .....	J. H. Johnson, Esq., C.E.	8	8	0	18	600	23·61	190	129
d Boston (Bargate End) .....	A. O. Scrivener, Esq.	8	1	4	9	603	23·74	179	129
d Sleaford (Kesteven County Asy.)	Dr. J. A. Ewan	5	1	0	100	625	24·62	192	128
d Fulbeck Hall .....	Col. King Fane	5	1	0	180	614	24·15	255	136
d Cranwell Aerodrome .....	(+A) The Meteorological Office	8	1	0	237	635	25·01	186	133
d New Leake (Lade Bank Engine)	J. H. Johnson, Esq., C.E.	8	1	0	10	563	22·15	..	..
d Carrington Grange .....	Mr. T. J. Ward	5	6	0	15	611	24·06	161	129
d Wellingore .....	Miss A. S. Morley	5	1	0	..	625	24·62	180	120
d Navenby Rectory .....	Mr. J. Thompson	5	1	0	218	665	26·16	172	136
d Carlton-le-Moorland .....	J. Brocklebank, Esq.	5	1	2	49	687	27·03	177	133
d East Kirkby (E. Kirkby House)	Capt. R. S. Fieldsend	5	1	0	90	636	25·05	192	132
d Revesby Reservoir .....	T. H. Tyson, Esq.	5	2	0	124	651	25·64	161	118
d Woodhall Spa (Galm House) ..	J. Collins, Esq.	5	1	6	72	554	21·82	200	115
d Bardney Railway Station .....	A. Burridge, Esq., C.E.	8	7	6	25	573	22·54	174	112
d Horncastle .....	H. R. Maynard, Esq.	5	2	0	120	668	26·31	204	125
d Lincoln (Skellingthorpe Hall) ..	A. H. Berne-Coupland, Esq.	5	1	0	40	713	28·09	..	..
d Lincoln (Sessions House) .....	Arthur Smith, Esq.	5	1	3	58	685	26·99	190	126
d Lincoln (Cottesford Place) .....	F. A. Peacock, Esq.	6	0	9	224	740	29·15	194	140
d Hackthorn Hall .....	E. W. Cracroft, Esq.	5	4	8	105	704	27·73	199	135
d Willingham-by-Stow .....	R. C. Bacon, Esq.	8	2	0	65	745	29·33	207	140
d Springthorpe Rectory .....	Rev. B. Davies	5	1	0	75	700	27·56	183	133
4.—GREAT EAU & C. 443 sq. mi.									
d Skegness (Marine Gardens)* .....	F. A. Jenkins, Esq.	8	1	0	13	595	23·42	180	125
d East Keal Rectory .....	Rev. R. H. Simpson	5	0	7	180	615	24·22	192	125
d Spilsby (Ashby Road) .....	J. Jarvis Rainey	5	1	0	160	689	27·13	170	133
d Hagworthingham (Glebe House)	Mr. R. Wright	5	1	8	240	751	29·56	198	141
d Alford (Finsbury Street) .....	Mr. E. Hodgson	5	1	0	29	642	25·26	185	120
d Mablethorpe (Trusthorpe Hall) ..	I. N. Woodiwiess, Esq.	8	1	3	10	738	29·07	203	131
d Louth (Westgate) .....	Rev. W. E. Yates	5	0	9	120	772	30·38	227	131
d S. Elkington (Elkington Hall)	Countess of Wilton	5	1	9	234	697	27·45	..	..
d Kirmond .....	C. Fieldsend, Esq.	5	1	2	309	720	28·33	206	131
d Wold Newton Manor .....	W. Maurice Wright, Esq.	5	1	6	230	746	29·36	..	..
d Grainsby Hall .....	Mr. J. Butters	5	1	0	75	764	30·07	219	145
5.—HUMBER—Right Bank Tributaries. 428 sq. mi.									
d North Willingham House .....	Mrs. Charles Wright	5	3	0	..	828	32·59	247	153
d Brigg (Grammar School) .....	H. E. Bryant, Esq.	5	1	0	32	631	24·85	..	..
d Brigg (Bridge Street) .....	A. Atkinson, Esq., C.E.	8	1	2	11	711	27·99	193	137
d Grimsby (Abbey Road) .....	W. J. Wood, Esq.	5	3	6	23	739	29·09	179	133
d Brocklesby Park .....	Mr. F. C. Stainsby	5	2	0	107	816	32·14	187	148
d Burton-on-Stather (Normanby)	A. G. Wilkes, Esq.	5	1	0	185	750	29·52	200	140
d Winterton (Beech House) .....	Dr. E. J. Tongue	5	1	3	50	760	29·91	191	147
d Horkstow .....	E. J. Turton, Esq.	5	0	10	75	787	31·00	205	160
d Ferryby Sluice .....	A. Atkinson, Esq., C.E.	5	1	0	18	723	28·46	198	..
6.—TRENT—Right Bank Tributaries. 172 sq. mi.									
d Woolthorpe .....	A. L. Newton, Esq.	..	1	3	182	635	24·99	..	..
d Torksey .....	Miss M. Burt	5	1	0	18	636	25·05	183	131
d Gate Burton Hall .....	The Hon. Mrs. Sandars	5	2	0	97	656	25·81	..	..
7.—TRENT—Left Bank Tributaries. 77 sq. mi.									
d Wroot (S. Level Pump Station)	Mr. F. S. Trafford	10	4	0	13	635	25·00	..	130
d Crowle (N. Level Pump. Station)	Mr. H. G. Trafford	5	2	6	13	661	26·04	..	123

\* Formerly called Skegness (Estate Offices).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain.	Days with -01 in. or more.	Days with -04 in. or more.		
		Diam.	Height Ground	above Sea Level.					
NOTTINGHAMSHIRE. (Area, 843 sq. mi.).				in.	ft. in.	ft.	mm.	in.	
<b>1.—WITHAM. 10 sq. mi.</b>									
<b>2.—TRENT—Right Bank Tributaries. 218 sq. mi.</b>									
Loughborough (Costock School)	Miss S. E. Beecroft	5	1	0	167	627	24.68	198	133
Kingston (Midland Agric. Coll.)	J. H. Beale, Esq.	5	1	0	125	563	22.16	..	..
Plumtree (Normanton-on-Wolds)	T. A. Hill, Esq.	8	2	0	170	665	26.19	195	137
Ruddington (Westlands)	J. D. Walker, Esq.	5	1	0	100	630	24.79	187	130
Nottingham (Wilford Hill Res.)	F. W. Davies, Esq., C.E.	8	0	10	296	640	25.18	201	136
Newark	F. Stuffsins, Esq.	5	0	8	42	662	26.08	172	..
<b>3.—TRENT—Derwent. 2 sq. mi.</b>									
<b>4.—TRENT—Erewash. 42 sq. mi.</b>									
Nottingham (Strelley)	T. L. K. Edge, Esq.	8	1	0	396	686	27.01	217	133
Nottingham (Strelley Hall)	T. L. K. Edge, Esq.	5	1	0	377	688	27.08	193	131
Bulwell (Watnall Reservoir)	F. W. Davies, Esq., C.E.	8	0	11	472	757	29.82	220	142
Eastwood Waterworks	F. W. Davies, Esq., C.E.	8	1	2	244	673	26.49	178	126
Eastwood Hall	Messrs. Barber Walker & Co.	5	1	0	218	886	34.88?	206	140
Eastwood (Moorgreen Res.)	Great Northern Rly Co.	5	6	0	301	752	29.59	218	142
Annesley (Selston W.W.)	S. Maylan, Esq.	5	1	0	475	698	27.47	187	127
<b>5.—TRENT—Left Bank Tributaries. 569 sq. mi.</b>									
Beeston (Council Depot)	E. A. Bush, Esq.	5	1	0	120	662	26.08	199	..
Lenton (Lenton Fields)	R. F. T. Granger, Esq.	8	1	0	132	667	26.27	202	126
Nottingham (Trent Lane)	(A.) T. Wallis Gordon, Esq., C.E.	8	1	0	85	620	24.40	181	120
Nottingham (The Castle)	T. Wallis Gordon, Esq., C.E.	8	1	0	192	645	25.40	191	132
Nottingham (Burford Road)	A. B. Tinn, Esq.	5	1	0	170	673	26.50	186	127
Nottingham (Stoke Bardolph)	T. Wallis Gordon, Esq., C.E.	8	1	0	66	585	23.04	..	125
Nottingham (Mapperley Hill)	Dr. G. L. Brunton	8	1	0	400	674	26.53	182	133
Bagthorpe (Isolation Hospital)	P. Boobyer, Esq., M.D.	8	2	0	189	685	26.97	208	121
Nottingham (Basford W.W.)	F. W. Davies, Esq., C.E.	8	1	0	169	656	25.83	185	123
Burton Joyce Water Works	F. W. Davies, Esq., C.E.	8	0	9	65	706	27.79	183	148
Bulcote (Corporation Farm)	T. Wallis Gordon, Esq., C.E.	10	1	3	65	611	24.04	185	..
Lowdham (Chilwell Nurseries)	Mr. J. D. Pearson	5	1	5	90	644	25.34	..	..
Bulwell (Bestwood W. W.)	F. W. Davies, Esq., C.E.	8	1	2	317	603	23.73	172	122
Daybrook (Red Hill Reservoir)	F. W. Davies, Esq., C.E.	8	0	11	407	696	27.40	227	146
Daybrook (Ramsdale Hill Res.)	F. W. Davies, Esq., C.E.	8	0	11	495	711	28.00	224	141
Bulwell Hall Park	T. Wallis Gordon, Esq., C.E.	8	1	0	252	724	28.49	199	..
Papplewick (Water Works)	F. W. Davies, Esq., C.E.	8	0	10	317	742	29.23	195	146
Southwell (The Residence)	Vn. Acn. W. J. Conybeare	5	1	0	106	672	26.46	177	127
Southwell (Elmfield)	Dr. H. Handford	5	1	0	133	642	25.29	177	127
Sutton-in-Ashfield (Rushley P.S.)	Messrs. G. & F. W. Hodson	5	1	0	462	751	29.58	176	137
Sutton-in-Ashfield (Sew. Wks.)	F. J. Grierson, Esq.	5	1	0	453	788	31.04	197	146
Mansfield (Rainworth W.W.)	J. Gibson, Esq., C.E.	5	1	0	360	791	31.14	199	138
Mansfield (West Bank)	W. Pickard, Esq.	8	1	0	405	795	31.30	205	138
Mansfield (Debdale Hall)									

**6.—OUSE—Don. 2 sq. mi.**

## DIVISION VII.—NORTH MIDLAND COUNTIES—(con.).

STATIONS.	AUTHORITIES.	Rain Gauge.				Depth of Rain.		Days with ·01 in. or more.	Days with ·04 in. or more.
		Diam.	Height Ground	above Sea Level.		1923			
DERBYSHIRE. (Area, 1029 sq. mi.).		in.	ft.	in.	ft.	mm.	in.		
1.—MERSEY, UPPER. 93 sq. mi.									
D Whaley Bridge (Mosley Hall)	S. Arrowsmith, Esq. ....	5	1	0	760	1454	57·25	256	200
D Glossop W. W. (Swineshaw)....	W. A. Mitchell, Esq. ....	12	3	0	733	1307	51·46	246	202
2.—MERSEY—Weaver. 2 sq. mi.									
3.—TRENT—Right Bank Tributaries. 68 sq. mi.									
D Repton (The Croft) .....	H. C. Hayward, Esq. ....	5	1	4	170	733	28·85	217	149
d Stanton-by-Bridge W.W.....	T. Hardy, Esq., C.E. ....	8	1	2	144	635	24·98	..	132
4.—TRENT—Dove. 156 sq. mi.									
Somersall Herbert Rectory....	Rev. C. E. B. Deacon.....	5	1	0	370	859	33·84	193	152
D Snelston Hall .....	Mr. A. Bennett .....	5	1	0	531	987	38·84	207	173
D Ashbourne Water Works .....	E. Wright, Esq.....	5	1	0	582	980	38·60	192	154
D Ashbourne (The Mansion).....	R. E. Sadler, Esq. ....	5	1	0	396	1128	44·41	220	174
5.—TRENT—Left Bank Tributaries. 84 sq. mi.									
Findern (The Longlands) .....	late Mrs. B. W. Spilsbury .	5	0	9	186	696	27·39	190	139
d Etwall (Blakeley Lodge) .....	G. Edge Laban, Esq. ....	5	1	0	190	782	30·80	..	..
D Etwall (Sewage Farm) .....	Mr. B. Hydes .....	5	1	8	201	739	29·11	191	149
d Mickleover (C. Mental Hospital)	G. V. Bartlett, Esq., M.D.	5	3	0	300	734	28·91	..	140
D Mickleover (Clyde House) .....	Mr. J. Campbell .....	5	6	0	280	813	32·01	211	144
Littleover (The Knoll) .....	W. Blews Robotham, Esq.	5	1	0	300	717	28·25	210	143
D Littleover (Hilltop).....	E. McInnes, Esq. ....	5	2	6	346	694	27·33	220	143
6.—TRENT—Derwent. 428 sq. mi.									
D Spondon (Derby Sewage Wks.)	C. A. Clews, Esq., C.E. ....	5	1	3	135	653	25·69	202	134
D Derby (Osmaston Rd.) .....	Sir Henry Fowler .....	5	1	10	..	695	27·37	186	135
D Derby (Wild Street) .....	Messrs. J. Davis & Son, Ltd.	5	1	0	174	728	28·67	224	156
D Derby (L.M. & S. Railway).....	J. Sayers, Esq. ....	5	1	5	156	632	24·89	178	130
d Derby (Royal Infirmary) .....	W. Banks, Esq. ....	5	1	0	195	759	29·90	172	..
D Derby (The Arboretum).....	C. A. Clews, Esq., C.E.....	8	1	0	196	687	27·05	195	134
Kirk Langley (Langley Hall) ..	G. W. Peach, Esq. ....	5	1	5	396	826	32·51	204	146
D Duffield (The Kirkstyles) .....	Messrs. J. Davis & Son ...	5	2	0	235	793	31·21	203	147
D Belper (Herbert Strutt Sch.) ..	Cecil Round, Esq. ....	5	0	8	223	846	33·32	209	146
D Belper (Fernslope) .....	F. J. Jackson, Esq. ....	5	1	6	356	832	32·75	203	142
D Belper (Quarry Bank) .....	J. Hunter, Esq., C.E. ....	5	0	10	281	834	32·82	209	144
Ambergate Reservoir ..No. 61	S. B. Winsor, Esq., C.E. ..	5	1	0	700	805	31·69	..	..
D Wirksworth (Manor House) ..	T. Atkinson, Esq. ....	5	1	0	498	1017	40·02	195	153
D Brackenfield (Lindway Res.) ..	R. F. Ward, Esq., C.E. ....	5	1	0	595	935	36·79	190	146
Matlock Bath (Lower Tower) ..	Miss E. Chadwick .....	5	1	1	500	971	38·25	..	..
D Matlock (Rockside Hydro.) ..	J. H. Goodwin, Esq. ....	5	1	0	638	968	38·12	212	150
D Darley Hall .....	A. Clay, Esq. ....	5	1	0	400	960	37·81	219	156
D Darley Dale (Stancliffe Hall) (r)	Maj. T. Bedford Franklin.	8	1	0	560	1128	44·42	229	171
D Clay Cross (Press Reservoirs) ..	Gilbert Frith, Esq., C.E. ..	8	1	0	810	1022	40·23	176	161
D Buxton (Hurdlow Top) .....	E. H. d'E. Darby, Esq. ....	8	2	3	1267	1344	52·90	..	..
D Chatsworth Gardens .....	Mr. G. F. Marples .....	5	1	0	436	812	31·97	211	152
d Great Longstone (Holmcroft) ..	J. G. Bown, Esq. ....	5	1	6	690	1139	44·85	..	150
D Buxton (Portobello Bar) .....	F. Langley, Esq., C.E. ....	8	1	6	1600	1855	73·01	273	222
D Buxton (Stanley Moor) .....	F. Langley, Esq., C.E. ....	8	1	0	1340	1749	68·86	270	220
D Buxton (Burbage Edge) .....	F. Langley, Esq., C.E. ....	8	1	0	1400	1746	68·73	271	213
D Buxton (Devonshire Hospital) ..	Miss E. W. Pilkington ...	5	1	0	988	1496	58·90	252	206
D Holmesfield (Barbrook Res.) ..	Gilbert Frith Esq., C.E. ..	8	1	0	1080	834	32·84	210	158
w Froggatt Edge (Stoke Flat Filtr.)	J. G. Bown, Esq. ....	5	1	0	960	1132	44·58	..	..
D Bamford (Engineer's Office) 60	S. B. Winsor, Esq., C.E. ..	8	2	0	510	1227	48·30	285	194
D Bamford Filters .....	No. 70 S. B. Winsor, Esq., C.E. ..	8	1	0	656	1182	46·54	272	190
D Hope (Killhill Bridge) ..No. 56	D. W. Chadwick, Esq. ..	5	1	0	555	1304	51·34	255	195
Bamford (Yorkshire Br. Weir) 59	S. B. Winsor, Esq., C.E. ..	5	1	0	540	1159	45·65	..	..
Derwent Vicarage ..No. 67	S. B. Winsor, Esq., C.E. ..	8	1	0	675	1298	51·10	..	..
Derwent (Lockerbrook Plant) 68	S. B. Winsor, Esq., C.E. ..	5	1	0	782	1438	56·60	..	..
Derwent Dam .....	No. 26 S. B. Winsor, Esq., C.E. ..	8	1	0	790	1386	54·58	274	207
Woodland Dale (Woodlinds, S) 48	S. B. Winsor, Esq., C.E. ..	5	1	0	1044	1161	45·69	..	..

## DIVISION VII.—NORTH MIDLAND COUNTIES—(con.).

STATIONS.	AUTHORITIES.	Rain Gauge.				Depth of Rain. 1923	Days with ·01 in. or more.	Days with ·04 in. or more.
		Diam.	Height Ground	above Sea Level.				
DERBYSHIRE—(con.).		in.	ft.	in.	ft.	mm.	in.	
6.—TRENT—Derwent—(con.).								
Woodland Dale (Woodlands, N) 47	S. B. Winsor, Esq., C.E. . .	5	1	0	1063	1408	55·44	.. ..
Hayfield (Ashop Head) No. 43	S. B. Winsor, Esq., C.E. . .	5	1	0	1650	1499	59·00	.. ..
Derwent Dale (Shire Owlers) 69	S. B. Winsor, Esq., C.E. . .	5	1	0	825	1386	54·57	.. ..
Derwent Dale (Birchinlee) No. 23	S. B. Winsor, Esq., C.E. . .	8	1	0	870	1603	63·13	270 202
Westend Bridge . . . . . No. 66	S. B. Winsor, Esq., C.E. . .	5	1	0	878	1547	60·92	.. ..
Lady Clough Moor. . . . . No. 41	S. B. Winsor, Esq., C.E. . .	5	1	0	1720	1473	58·00	.. ..
Lady Clough Moor. . . . . No. 41	A. S. B. Winsor, Esq., C.E. . .	5	1	0	1720	1676	65·97	.. ..
Coldharbour Moor (Summit) 39	S. B. Winsor, Esq., C.E. . .	5	1	0	1670	1433	56·40	.. ..
Derwent Dale (Howden Dam) 17	S. B. Winsor, Esq., C.E. . .	8	1	0	829	1494	58·81	269 206
Derwent Dale (Ridge Farm) 13	S. B. Winsor, Esq., C.E. . .	8	1	0	1175	1425	56·09	.. ..
Derwent Dale (Ridge Farm) 13A	S. B. Winsor, Esq., C.E. . .	8	1	0	875	1668	65·68	.. ..
Alport Moor (Glethering Cl.) 40	S. B. Winsor, Esq., C.E. . .	5	1	0	1640	1477	58·13	.. ..
Alport Moor (Glethering Cl.) 40A	S. B. Winsor, Esq., C.E. . .	5	1	0	1640	1470	57·88	.. ..
Westend Moor (Blacklow Cote) 15	S. B. Winsor, Esq., C.E. . .	5	1	0	970	1653	65·06	.. ..
Westend Moor . . . . . No. 10	S. B. Winsor, Esq., C.E. . .	5	1	0	1560	1462	57·55	.. ..
Alport Moor . . . . . No. 38	S. B. Winsor, Esq., C.E. . .	5	1	0	1790	1478	58·20	.. ..
Alport Moor. . . . . No. 38A	S. B. Winsor, Esq., C.E. . .	5	1	0	1790	1742	68·60	.. ..
Derwent Dale (Slippery Stones) 62	S. B. Winsor, Esq., C.E. . .	5	1	0	908	1454	57·24	.. ..
Ridgewalk Moor. . . . . No. 9	S. B. Winsor, Esq., C.E. . .	5	1	0	1650	1467	57·77	.. ..
Broadhead Clough . . . . . No. 63	S. B. Winsor, Esq., C.E. . .	5	1	0	1005	1570	61·82	.. ..
7.—TRENT—Erewash. 50 sq. mi.								
d Codnor (Cross Hill) . . . . . A. F. Pine, Esq. . . . .	5	1	0	372	761	29·97	180	146
d Codnor Park . . . . . S. Winsor, Esq. . . . .	5	1	0	243	793	31·20	222	146
d Butterley Park . . . . . G. F. Wright, Esq. . . . .	5	1	2	413	728	28·66	192	136
8.—OUSE—Don. 148 sq. mi.								
Hardwick Hall Gardens . . . . . Mr. E. Wilson. . . . .	8	2	6	594	738	29·06	.. ..	..
d Chesterfield (Sewage Works) . . . . . Mr. W. Tomlinson. . . . .	5	2	0	222	780	30·70	167	132
d Chesterfield (Linacre Res.) . . . . . Chesterfield Water Board . . . . .	8	1	0	460	982	38·66	214	176
d Chesterfield (Linacre Res.) . . . . . Chesterfield Water Board . . . . .	5	1	0	490	935	36·82	214	177
d Chesterfield (Taptop Grove) . . . . . Mr. W. R. Bloxham . . . . .	5	4	0	400	773	30·43	.. ..	..
d Totley Hall . . . . . W. A. Milner, Esq. . . . .	5	1	0	700	1044	41·11	227	171
d Eckington (Can.ms End. Sch.) . . . . . A. W. H. Hill, Esq. . . . .	5	1	0	200	806	31·73	174	128
d Eckington (Mosbrough C.E. Sch.) . . . . . W. H. Holmes, Esq. . . . .	5	1	0	330	776	30·56	207	125

## DIVISION VIII.—NORTH-WESTERN COUNTIES.

CHESHIRE. (Area, 1,027 sq. mi.).

**1.—MERSEY, UPPER. 269 sq. mi.**

d Langley (Bottoms Res.) ..... E. Hamson, Esq., C.E.	5	1	0	664	1264	49·75	229	196
d Macclesfield (Leadbeaters Res.) ..... E. Hamson, Esq., C.E.	5	1	0	608	1007	43·57	236	179
d Macclesfield (West Park) ..... E. Hamson, Esq., C.E.	5	1	0	501	1095	43·09	219	192
d Rainow (The Clough) ..... Miss Anna Neave	5	1	0	815	1141	44·93	227	178
d Knutsford (Hazlefield) ..... H. P. Ashworth, Esq.	5	1	2	213	989	38·95	229	171
d Wilmslow (Parkside) ..... J. H. Neave, Esq.	8	1	0	255	1033	40·69	232	180
d Wilmslow (Dean Row) ..... J. H. Cooke, Esq.	5	1	0	292	1125	44·29	236	186
d Kettleshulme (Glebe House) ..... A. Y. Barker, Esq.	5	1	6	850	1363	53·67	241	196
d Poynton (Waterloo) ..... C. F. Butterworth, Esq.	5	1	0	397	1120	44·09	238	189
d Disley (Lyme Park) ..... T. Molyneux, Esq., C.E.	5	1	0	674	1086	42·75	229	185
d Disley (Lyme Park) ..... T. Molyneux, Esq., C.E.	5	1	0	720	1068	42·03	229	184
d Bramhall (Bramhall Lane) ..... S. O'Dwyer, Esq.	5	1	0	256	1029	40·50	199	164
d Runcorn (Weston Point) ..... Col. J. A. Saner, C.E.	8	1	4	17	1012	39·83	232	179
d Thelwall (The Clough) ..... E. W. Reynolds, Esq.	5	1	0	95	977	38·45	231	177
d Altrincham (Hale) ..... F. C. Lamb, Esq., Jr.	5	1	0	122	1029	40·50	221	180
Altrincham (Norman's Place) ..... Miss G. A. Griffiths	5	8	0	150	1108	43·61	.. ..	..
Altrincham (Barrington House) ..... C. E. Newton, Esq., C.E.	8	2	6	103	1033	40·69	.. ..	..
Cheadle (Adswold) ..... R. W. Wright, Esq.	5	0	6	186	1026	40·41	.. ..	..
d Carrington Vicarage ..... Rev. J. S. Addison	5	2	0	55	907	35·73	223	171
Godley Reservoir ..... L. Holme Lewis, Esq., C.E.	12	2	0	500	1081	42·57	.. ..	..
d Broadbottom (Harewood Lodge) ..... Col. W. Sidebottom	5	1	0	440	1162	45·75	209	192

## DIVISION VIII.—NORTH-WESTERN COUNTIES—(con.).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain.		Days with ·01 in. or more.	Days with ·04 in. or more.
		Diam.	Height Ground	above Sea Level.	1923			
CHESHIRE—(con.).		in.	ft. in.	ft.	mm.	in.		
1.—MERSEY, UPPER—(con.).								
D Dukinfield (Higher Reservoir) . . . . .	G. H. Raddin, Esq., C.E. . . . .	8	1 6	495	877	34·54?	237	179
D Dukinfield (Lower Reservoir) . . . . .	G. H. Raddin, Esq., C.E. . . . .	5	1 0	435	1081	42·54	237	187
Arnfield Reservoir . . . . .	L. Holme Lewis, Esq., C.E. . . . .	12	2 0	512	1257	49·50	..	..
Rhodes Wood Reservoir . . . . .	L. Holme Lewis, Esq., C.E. . . . .	12	2 0	545	1304	51·33	..	..
Torside Reservoir . . . . .	L. Holme Lewis, Esq., C.E. . . . .	12	2 0	669	1437	56·58	..	..
D Stalybridge (Market Ground Yd.) . . . . .	G. H. Raddin, Esq., C.E. . . . .	5	1 0	373	1201	47·27	231	186
D Stalybridge (Brushes Filter Ho.) . . . . .	G. H. Raddin, Esq., C.E. . . . .	5	1 6	616	1217	47·91	232	199
Swineshaw Moor (Lees Hill) . . . . .	G. H. Raddin, Esq., C.E. . . . .	5	1 0	1108	1247	49·08	..	..
Woodhead Reservoir . . . . .	L. Holme Lewis, Esq., C.E. . . . .	12	2 0	815	1665	65·57	..	..
2.—MERSEY—Weaver. 489 sq. mi.								
D Nantwich (Dorfold Hall) . . . . .	Col. J. A. Saner, C.E. . . . .	8	1 0	190	894	35·21	249	182
D Nantwich (Reaseheath Hall) . . . . .	Col. J. A. Saner, C.E. . . . .	8	1 0	130	842	33·16	262	172
d Crewe (Weston Lane) . . . . .	W. H. Williams, Esq. . . . .	12	4 0	186	728	28·65	..	..
D Crewe (Isolation Hospital) . . . . .	E. G. Timbrell, Esq., C.E. . . . .	5	1 0	172	839	33·05	211	160
D Congleton (Buglawton Vicarage) . . . . .	Col. J. A. Saner, C.E. . . . .	8	5 0	347	981	38·62	251	175
D Tarporley (Tirley Garth Gdns.) . . . . .	Mr. J. B. Allan . . . . .	5	3 6	450	873	34·35	245	167
D Middlewich . . . . .	Messrs. Brunner, Mond & Co. . . . .	5	3 10	138	811	31·92	214	165
Middlewich (Bostock Hall) . . . . .	Capt. W. H. France-Hayhurst . . . . .	5	2 0	157	911	35·85	..	146
D Delamere (Linnere) . . . . .	Office of Woods . . . . .	..	..	250	872	34·33	216	170
D Norley (Jewish School) . . . . .	H. P. Landon, Esq. . . . .	5	0 10	260	915	36·02	215	178
D Chelford (Astle Hall) . . . . .	late Sir G. Dixon, Bart. . . . .	5	1 0	250	995	39·18	207	170
D Northwich (Hunts Lock) . . . . .	Col. J. A. Saner, C.E. . . . .	8	1 0	47	963	37·91	240	177
D Northwich (Winnington) . . . . .	Messrs. Brunner, Mond & Co. . . . .	5	1 0	64	923	36·33	232	170
D Northwich (Lostock Gralam) . . . . .	Messrs. Brunner, Mond & Co. . . . .	5	3 6	75	969	38·13	242	177
3.—MERSEY, LOWER & C. 142 sq. mi.								
D Ince Hall . . . . .	Mrs. Park-Yates . . . . .	5	1 0	95	962	37·89	235	179
D Hooton Water Works . . . . .	A. J. Robinson, Esq. . . . .	5	1 0	97	932	36·68	200	164
D Eastham (Mill Hey) . . . . .	Roger P. Sing, Esq. . . . .	5	1 7	125	1101	43·36	232	188
D Eastham House . . . . .	Sir J. Herbert Vernon, Bart. . . . .	5	1 0	100	956	37·63	234	174
D Wirral W. W. (Prenton) . . . . .	A. J. Robinson, Esq. . . . .	5	1 0	91	799	31·45	202	161
D Rock Ferry (Elmhurst) . . . . .	Miss Shepherd . . . . .	8	6 0	100	951	37·45	210	167
D Birkenhead (Bidston Obs'y.) (+A) . . . . .	W. E. Plummer, Esq. . . . .	8	1 0	189	786	30·92	218	173
D Hoylake (District Council Office) . . . . .	R. W. Fraser, Esq. . . . .	5	1 0	29	835	32·86	223	186
D New Brighton (Marine Park) . . . . .	Dr. T. W. N. Barlow . . . . .	5	1 0	35	872	34·33	226	178
4.—DEE. 127 sq. mi.								
D Eaton Hall Gardens . . . . .	Mr. N. F. Barnes . . . . .	5	3 0	72	721	28·38	204	150
Eccleston . . . . .	E. Wells, Esq. . . . .	5	1 1	94	747	29·42	214	159
D Rowton (Holly Bank) . . . . .	R. J. Salmon, Esq. . . . .	5	1 5	123	875	34·47	215	161
D Chester (Abbot's Park) . . . . .	J. H. Howell, Esq. . . . .	5	1 1	63	784	30·86	216	162
D Chester (Boughton) . . . . .	Rev. Canon T. Urmson . . . . .	5	1 0	58	747	29·41	217	165
D Chester (Sewage Works) . . . . .	F. W. Davis, Esq. . . . .	5	1 0	34	740	29·12	190	136
D Chester (Water Works) . . . . .	C. Wilfrid Bennett, Esq. . . . .	5	0 10	85	759	29·88	220	153
D Chester (Water Works) . . . . .	C. Wilfrid Bennett, Esq. . . . .	8	6 0	89	735	28·95	219	156
D Capenhurst Hall . . . . .	R. T. Richardson, Esq. . . . .	5	5 10	130	907	35·72	224	171
D Neston (Vine House) . . . . .	H. F. Russell, Esq. . . . .	5	1 0	111	741	29·19	214	158
Heswall (Gayton Cottage) . . . . .	L. N. Brooke, Esq. . . . .	5	1 0	29	770	30·32	..	143
D West Kirby (Caldy Manor) . . . . .	Mr. E. L. Barker . . . . .	5	0 11	132	810	31·90	215	163
D West Kirby (Hilbre House) . . . . .	Egerton Macdonald, Esq. . . . .	5	0 9	25	832	32·77	..	..
d West Kirby (Princes Av.) . . . . .	Miss G. S. Kirkby . . . . .	5	1 0	80	807	31·78	228	163
D West Kirby (St Andrew's Vic.) . . . . .	Rev. E. F. Robson . . . . .	5	0 9	20	780	30·70	217	155
SOUTH LANCASHIRE. (Area, 687 sq. mi.).								
1.—ALT & C. 103 sq. mi.								
D Great Crosby (Farnley) . . . . .	J. Appleby, Esq. . . . .	5	1 0	53	835	32·88	216	167
D Blundellsan's (Myra) . . . . .	(+A) H. Montgomery, Esq. . . . .	5	1 0	35	879	34·61	229	175
d Ormskirk (Bickerstaffe P. Stn.) . . . . .	C. Burton Ede, Esq., C.E. . . . .	5	1 2	128	1006	39·61	..	..
d Ormskirk (Springfield P. Stn.) . . . . .	C. Burton Ede, Esq., C.E. . . . .	5	0 11	70	972	38·26	..	..
M Downholland (Barton Moss) . . . . .	J. Baxendell, Esq. . . . .	5	1 0	15	897	35·33	..	..



## DIVISION VIII.—NORTH-WESTERN COUNTIES—(con.).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain.		Days with ·01 in. or more.	Days with ·04 in. or more.	
		Diam.	Height Ground	above Sea Level.	1923				
SOUTH LANCASHIRE—(con.).		in.	ft.	in.	ft.	mm.	in.		
2.—MERSEY, LOWER. 240 sq. mi.									
Garston	J. A. Brodie, Esq., C.E.	10	1	10	84	1149	45·22	237	191
d Garston (Grassendale Park)	Miss E. C. Abraham	5	1	0	35	906	35·66	211	172
d Aigburth (Holmfild)	Miss Maxwell	5	1	0	100	974	38·35	243	186
d Aigburth (Beech Lawn)	T. H. Edwards, Esq.	8	1	0	120	903	35·57	233	174
d Woolton (Roseleigh Gardens)	Mr. J. Stoney	8	1	0	184	1061	41·76	237	203
d Warrington (Howley Yard)	A. M. Ker, Esq.	10	0	9	26	891	35·10	201	173
Liverpool (Monument Place)	J. A. Brodie, Esq., C.E.	5	1	3	126	886	34·89	216	163
Liverpool (Smithdown Road)	J. A. Brodie, Esq., C.E.	10	0	9	135	1008	39·67	243	179
Liverpool (Rathbone Road)	J. A. Brodie, Esq., C.E.	10	1	0	199	1060	41·73	236	186
Liverpool (Lark Lane)	J. A. Brodie, Esq., C.E.	10	10	8	101	1051	41·39	244	185
Liverpool (Newsham Park)	J. A. Brodie, Esq., C.E.	10	1	0	140	1038	40·87	242	191
Liverpool (Breeze Lane)	J. A. Brodie, Esq., C.E.	5	0	9	135	1001	39·40	234	186
d St. Helen's (Eccleston Hill)	A. W. Bradley, Esq.	12	3	0	268	969	38·14	238	178
d St. Helen's (Victoria Park)	F. Hauxwell, Esq., M.O.H.	8	1	5	160	1043	41·08	235	188
d Earlestown (Newton Cemetery)	T. E. Clough, Esq.	5	1	0	75	927	36·50	..	..
d Leigh (Sewage Wks)	D. Ledson, Esq.	5	1	0	67	1029	40·50	236	184
d Leigh (Leesrigg)	Maj. T. Hunter, V.D., C.E.	5	1	0	71	1005	39·57	242	180
3.—MERSEY—Irwell. 299 sq. mi.									
d Manchester (Whalley Range)	F. Edwards, Esq.	5	1	0	90	1043	41·06	242	183
d Manchester (Hullard Park)	E. Worrall, Esq., C.E.	8	1	1	100	1149	45·24	..	187
d Urmston (Sew. Wks., Davyhulme)	G. F. Walter, Esq.	8	2	2	72	1018	40·08	..	..
d Manchester (Godlee Observ'y)	W. C. Jenkins, Esq.	8	1	6	140	1017	40·03	227	181
d Manchester (Oldham Road)	Dr. R. Veitch Clark	5	1	0	191	1049	41·33	237	176
d Manchester (Whitworth Park)	Manchester University	8	1	5	125	1035	40·75	235	179
d Ashton-und.-Lyne (Knott H. Res.)	G. H. Raddin, Esq., C.E.	8	1	0	605	1239	48·76	234	211
d Prestwich Sewage Works	M. A. Piercy, Esq., C.E.	8	1	0	136	1184	46·62	243	201
Prestwich Reservoir	L. Holme Lewis, Esq., C.E.	12	2	0	357	1072	42·21	..	..
d Prestwich (Heaton Park)	Manchester Corporation	8	1	0	312	1182	46·53	246	194
d Oldham Gas Works	Ernest Parry, Esq., C.E.	5	3	8	621	1434	56·44	263	206
d Oldham (Brushes Clough) No. 1	C. J. Batley, Esq., C.E.	5	4	0	930	1457	57·38	258	208
d Oldham (Brushes Clough) No. 2	C. J. Batley, Esq., C.E.	5	5	0	955	1506	59·28	258	204
d Oldham (Brushes Clough) No. 3	C. J. Batley, Esq., C.E.	5	1	0	921	1529	60·20	258	212
d Bolton (Queen's Park)	(+A) T. Midgley, Esq.	5	1	0	342	1447	56·99	247	209
d Bolton (Heaton Reservoir)	J. K. Swales, Esq., C.E.	5	1	0	500	1471	57·92	255	213
d Bolton (Bloomfield, Heaton)	Mrs. F. Taylor, J.P.	5	1	0	530	1319	51·94	265	210
d Bolton (Smithills Hall)	Col. R. H. Ainsworth	8	1	2	510	1593	62·70	227	212
d Bolton (Smithills Moor)	Col. R. H. Ainsworth	8	1	2	1375	1734	68·26	..	..
d Bury (Parsons Lane)	R. B. Rigby, Esq.	8	9	6	316	1464	57·64	250	208
d Bury (Bridge Hall)	Miss Wrigley	8	1	0	..	1357	53·43	240	206
d New Hey (Sewage Works)	Mr. J. B. Ogden	5	1	0	514	1414	55·68	229	184
d Milnrow (Butterworth Hall)	C. J. Batley, Esq., C.E.	5	1	0	512	1494	58·83	256	199
d Milnrow (Piethorne, Kitchliffe)	C. J. Batley, Esq., C.E.	5	4	6	769	1423	56·02	253	188
d Milnrow (Piethorne, Kitchliffe) New	C. J. Batley, Esq., C.E.	5	1	0	766	1552	61·11	254	201
d Milnrow (Piethorne, Coldgreave)	C. J. Batley, Esq., C.E.	5	4	6	894	1336	52·61	254	193
d Milnrow (Piethorne, Coldgreave) New	C. J. Batley, Esq., C.E.	5	1	0	832	1519	59·81	254	199
d Milnrow (Piethorne, Norman Hill)	C. J. Batley, Esq., C.E.	5	4	6	1076	1231	48·47	254	192
d Milnrow (Piethorne, Rooden Res)	C. J. Batley, Esq., C.E.	5	4	6	1131	1207	47·50	254	188
d Rochdale (Roch Mills Sew. Wks)	S. H. Morgan, Esq.	8	1	1	363	1453	57·20	258	202
d Rochdale (Broadfield Pk. Obsy.)	Dr. A. G. Anderson	8	0	6	472	1465	57·67	261	202
d Rochdale (Fieldhead Yard)	S. H. Morgan, Esq.	8	12	0	484	1386	54·58	223	189
d Rochdale (Ashworth Moor Res.)	J. S. Diggle, Esq., C.E.	5	1	2	956	1403	55·24	239	200
d Bury (Gin Hall)	No. 1 J. Woodhead Smith, Esq. CE	8	1	0	475	1491	58·71	253	209
d Bury (Gin Hall)	No. 2 J. Woodhead Smith, Esq. CE	8	1	0	475	1540	60·63	253	208
d Belmont (Springs Reservoir)	J. K. Swales, Esq., C.E.	5	1	0	800	1795	70·68	269	211
d Belmont (Hordern)	J. K. Swales, Esq., C.E.	5	1	0	1160	1783	70·20	..	..
d Belmont (Longworth)	J. K. Swales, Esq., C.E.	5	1	0	770	1833	72·17	..	..
d Rochdale (Hamer Pasture Res.)	H. A. Braddock, Esq.	5	1	0	760	1608	63·32	251	213
d Rochdale (Naden Filters)	J. S. Diggle, Esq., C.E.	5	1	8	761	1526	60·08	237	195
d Norden (Higher Red Lumb)	J. S. Diggle, Esq., C.E.	5	1	2	1125	1504	59·21	..	..
w Norden (Far Knowl Farm)	J. S. Diggle, Esq., C.E.	5	0	10	..	1487	58·55	..	..

## DIVISION VIII.—NORTH-WESTERN COUNTIES—(con.).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain.		Days with ·01 in. or more.	Days with ·04 in. or more.
		Diam.	Height Ground	above Sea Level.	1923			
SOUTH LANCASHIRE—(con.).		in.	ft.	in.	ft.	mm.	in.	
3.—MERSEY—Irwell—(con.).								
w Rochdale (Naden Dean) <i>old g.</i> J. S. Diggle, Esq., C.E. . . . .		5	1	4	948	1111	43·73	..
w Rochdale (Naden Dean) <i>new g.</i> J. S. Diggle, Esq., C.E. . . . .		5	1	4	948	1226	48·26	..
m Ramsbottom (Killgate Brook) J. S. Diggle, Esq., C.E. . . . .		5	1	0	977	1544	60·78	..
m Ramsbottom (Cheesden Barn) . . . J. S. Diggle, Esq., C.E. . . . .		5	1	0	997	1451	57·13	..
d Edenfield (Scout Moor Res.) No.1 J. Woodhead Smith, Esq., C.E. . . . .		8	1	0	1275	1196	47·09	253
d Edenfield (Scout Moor Res.) No.2 J. Woodhead Smith, Esq., C.E. . . . .		8	1	0	1275	1342	52·83	253
d Waterfoot (Cragg Reservoir) . . . . W. H. Newton, Esq., C.E. . . . .		5	1	0	1425	1601	63·02	283
d Waterfoot (Cowpe Reservoir) . . . . W. H. Newton, Esq., C.E. . . . .		5	1	0	1026	1617	63·65	283
d Rochdale (Spring Mill Whitworth) H. A. Braddock, Esq. . . . .		5	1	7	720	1697	66·83	241
d Rochdale (Cowm, Whitworth) . . . . H. A. Braddock, Esq. . . . .		5	1	7	762	1763	69·41	238
d Entwistle Reservoir . . . . . J. K. Swales, Esq., C.E. . . . .		5	1	0	700	1763	69·41	265
m Belmont (Slater Lane) . . . . . J. K. Swales, Esq., C.E. . . . .		5	1	0	985	1701	66·97	..
d Helmshore (Clough House) . . . . A. C. Cullen, Esq. . . . .		8	1	6	650	1806	71·10	244
d Haslingden (Holden Wood) No.1 J. Woodhead Smith, Esq., C.E. . . . .		8	1	0	670	1919	75·56	250
d Haslingden (Holden Wood) No.2 J. Woodhead Smith, Esq., C.E. . . . .		8	1	0	670	1952	76·86	250
d Haslingden (Calf Hey) . . . No.1 J. Woodhead Smith, Esq., C.E. . . . .		8	1	0	800	1945	76·57	250
d Haslingden (Calf Hey) . . . No.2 J. Woodhead Smith, Esq., C.E. . . . .		8	1	0	800	1813	71·39	250
d Bacup (Sheephouse Res.) . . . . . W. H. Newton, Esq., C.E. . . . .		5	1	0	1007	1162	45·74	277
d Rawtenstall Cemetery . . . . . J. Johnson, Esq. . . . .		8	1	0	572	1554	61·18	..
d Rawtenstall (Cloughbottom) No.1 J. Woodhead Smith, Esq., C.E. . . . .		8	1	0	1025	1792	70·56	263
d Rawtenstall (Cloughbottom) No.2 J. Woodhead Smith, Esq., C.E. . . . .		8	1	0	1025	1749	68·86	263
d Rawtenstall (Hapton Res.) No.1 J. Woodhead Smith, Esq., C.E. . . . .		8	1	0	930	1757	69·16	266
d Rawtenstall (Hapton Res.) No.2 J. Woodhead Smith, Esq., C.E. . . . .		8	1	0	930	1889	74·39	266
4.—MERSEY, UPPER. 45 sq. mi.								
d Didsbury (Linden Road) . . . . . L. G. King, Esq. . . . .		8	1	6	110	1047	41·21	223
d West Didsbury (Town Hall) . . . . Manchester Corporation . . . . .		8	4	0	121	995	39·16	190
d Stockport (Heaton Mersey) . . . . W. B. Leigh, Esq. . . . .		5	1	0	218	1000	39·38	237
d Chorlton-cum-Hardy Sew. Works G. F. Walter, Esq. . . . .		8	4	0	78	1053	41·47	240
d Chorlton-cum-Hardy . . . . . J. H. Casartelli, Esq. . . . .		5	2	0	95	1072	42·22	215
d Fallowfield (Wilbraham Rd.) . . . . H. G. Ellinger, Esq. . . . .		5	1	0	108	1093	43·01	235
d Fallowfield (Platt Field Park) . . . Manchester Corporation . . . . .		8	3	3	124	1005	39·57	242
d Denton Reservoir . . . . . L. Holme Lewis, Esq., C.E. . . . .		12	2	0	324	993	39·10	..
d Gorton Reservoir . . . . . L. Holme Lewis, Esq., C.E. . . . .		12	2	0	263	1016	40·00	..
d Ashton-u-Lyne (Henrietta St Yd) G. H. Raddin, Esq., C.E. . . . .		7	1	0	394	1127	44·37	238
d Lower Swineshaw Reservoir . . . . G. H. Raddin, Esq., C.E. . . . .		8	1	6	886	1306	51·40	244
d Swineshaw Moor . . . . . G. H. Raddin, Esq., C.E. . . . .		5	1	0	1340	1367	53·81	..
d Mossley (Manor House Yard) . . . . G. H. Raddin, Esq., C.E. . . . .		5	1	0	636	1305	51·37	235
CENTRAL LANCASHIRE. (Area, 536 sq. mi.)								
1.—RIBBLE & C. 326 sq. mi.								
d Rivington (Higher Hill) . . . . . Col. J. R. Davidson, C.E. . . . .		8	1	4	733	1333	52·46	..
d Haslingden (Mitchells Ho. Res.) . . A. J. Harrison, Esq. . . . .		5	1	6	990	1596	62·83	..
d Darwen (Sunnyhurst Hey Res.) E. Marsden, Esq., C.E. . . . .		8	1	8	915	1655	65·17	256
d Darwen (Earnsdale Reservoir) E. Marsden, Esq., C.E. . . . .		8	1	8	705	1669	65·70	256
d Darwen (Bold Venture Park) . . . Dr. F. G. Haworth . . . . .		8	1	1	722	1805	71·09	259
d Darwen (Hoddlesden) . . . No. 1 A. T. Gooseman, Esq., C.E. . . . .		8	1	6	680	1589	62·55	251
d Darwen (Daisy Green) . . . No. 1 A. T. Gooseman, Esq., C.E. . . . .		8	1	6	969	1740	68·52	251
d Darwen (Pickup Bank) . . . No. 1 A. T. Gooseman, Esq., C.E. . . . .		8	1	6	720	1502	59·15	251
d Brindle (Whiteholme) . . . . . Mrs. Victor H. Gatty. . . . .		5	1	8	315	1099	43·26	191
d Blackburn (Guide Reservoir) . . . A. T. Gooseman, Esq., C.E. . . . .		8	1	6	610	1408	55·45	235
d Blackburn (Witton) . . . . . A. T. Gooseman, Esq., C.E. . . . .		8	1	6	315	1395	54·90	228
d Blackburn Fever Hospital . . . . A. T. Gooseman, Esq., C.E. . . . .		6	1	6	570	1279	50·36	258
d Blackburn (Pumping Station) . . . A. T. Gooseman, Esq., C.E. . . . .		8	1	6	600	1422	56·00	252
d Accrington (Milnshaw Park) . . . Mr. J. W. Terry . . . . .		5	1	6	464	1415	55·69	216
d Hutton (Lancs. C.C. Hort. Stat.) J. Gillett, Esq. . . . .		5	1	0	82	1107	43·59	229
d Lytham (Warton Hall) . . . . . W. Gordon Shorrocks, Esq. . . . .		5	1	0	20	913	35·94	..
d St. Anne's-on-Sea (Lawrence Ho.) C. G. D. Hoare, Esq. . . . .		5	1	0	25	953	37·52	226
d Higher Walton (Bannister Hall) late A. A. Gatty Esq. . . . .		5	0	7	75	1116	43·95	..
d Preston (Corporation Offices) . . . J. H. Smethurst, Esq., C.E. . . . .		8	18	7	148	1188	46·77	251
d Samlesbury Sewage Works . . . . A. T. Gooseman, Esq., C.E. . . . .		8	1	6	240	1245	49·03	228

## DIVISION VIII.—NORTH-WESTERN COUNTIES—(con.).

STATIONS	AUTHORITIES.	Rain Gauge.				Depth of Rain.		Days with ·01 in. or more.	Days with ·04 in or more.
		Diam.	Height Ground	above Sea Level.		1923			
CENTRAL LANCASHIRE—(con.).		in.	ft.	in.	ft.	mm.	in.		
1.—RIBBLE & C.—(con.).									
Rishton Reservoir	Leeds & Liverpool Canal Co.	10	2	0	467	1130	44·48	..	..
Causeway Side (Burnley W.W.)	S. Rawlinson, Esq.	8	2	0	1116	1485	58·45	..	..
Sheddin (Burnley W. W.)	S. Rawlinson, Esq.	8	2	0	960	1493	58·77	..	..
CantClough S. Side (Burnley WW)	S. Rawlinson, Esq.	8	2	0	900	1451	57·14	272	202
CantClough N. Side (Burnley WW)	S. Rawlinson, Esq.	8	2	0	900	1333	52·48	271	202
RamsClough Head (Burnley WW)	S. Rawlinson, Esq.	8	2	0	1260	1447	56·99	..	..
Huncoat (Burnley Road Res.)	A. J. Harrison, Esq.	9	1	6	620	1617	63·66	239	195
Wilpshire (Brooklyn Road)	H. W. Apperley, Esq.	5	1	0	408	1365	53·72	250	187
Great Harwood (Parsonage Res.)	A. T. Gooseman, Esq., C.E.	8	1	0	631	1335	52·54	241	203
Great Harwood (Dean Clough)	A. J. Harrison, Esq.	12	1	6	540	1501	59·11	252	208
Burnley (Queen's Park)	Dr. T. Holt	8	1	0	459	1469	57·86	257	206
Burnley (Yorkshire Street)	S. Rawlinson, Esq.	8	30	0	420	1201	47·28	259	199
Burnley (Swinden) Upper g.	S. Rawlinson, Esq.	8	12	0	820	1500	59·04	283	214
Burnley (Swinden) Lower g.	S. Rawlinson, Esq.	8	2	0	745	1564	61·56	283	228
Burnley (Extwistle Moor Top)	S. Rawlinson, Esq.	8	2	0	1310	1587	62·47	..	..
Padiham (Altham Sew. Works)	R. Ratcliffe, Esq., C.E.	5	1	0	225	1460	57·49	..	..
Padiham (Gawthorpe Hall)	Lord Shuttleworth	8	0	9	316	1424	56·07	215	200
Padiham (Huntroyde)	N. G. Howsin, Esq.	5	1	0	423	1495	58·84	237	205
Alston Reservoir	J. H. Smethurst, Esq., C.E.	8	1	2	320	1391	54·78	..	..
Nelson (Coldwell Res.)	No. 1 Smith Whitehead, Esq., C.E.	5	1	0	950	1306	51·41	258	211
Nelson (Coldwell Res.)	No. 2 Smith Whitehead, Esq., C.E.	5	1	0	960	1519	59·82	266	218
Nelson (Victoria Park)	Smith Whitehead, Esq., C.E.	5	1	0	375	1574	61·96	245	209
Stonyhurst College	(+A) Rev. A. L. Cortie, S. J.	8	1	10	377	1623	63·92	253	213
Knowle Green (Preston W. W.)	J. H. Smethurst, Esq., C.E.	8	1	2	400	1406	55·35	..	..
Spade Mill (Preston W. W.)	J. H. Smethurst, Esq., C.E.	8	1	2	400	1311	51·61	..	..
Jeffrey Hill (Preston W. W.)	J. H. Smethurst, Esq., C.E.	8	1	2	900	1519	59·80	..	..
Sabden (Churn Clough Res.)	R. Ratcliffe, Esq., C.E.	5	1	0	790	1510	59·46	273	215
Sabden (Craggs Dole)	R. Ratcliffe, Esq., C.E.	5	1	0	1050	1594	62·76	..	..
Newchurch (Cock Dole)	R. Ratcliffe, Esq., C.E.	5	1	0	1090	1653	65·10	..	..
Barley (Ogden Reservoir)	Smith Whitehead, Esq., C.E.	8	2	0	950	1724	67·86	248	205
Colne (The Rectory)	Rev. Dr. S. P. Duval	5	1	4	538	1505	59·26	256	205
Colne (Cemetery Grounds)	(r) T. H. Hartley, Esq.	8	2	11	619	1172	46·15	218	176
Barrowford Reservoir	Leeds & Liverpool Canal Co.	8	1	0	473	1340	52·75	..	..
Foulridge (Upper Reservoir)	Leeds & Liverpool Canal Co.	8	1	0	582	1340	52·77	..	..
Foulridge (Reedy Moor)	Leeds & Liverpool Canal Co.	..	..	..	553	1273	50·13	..	..
Clitheroe (Downham Hall)	R. C. Assheton, Esq.	10	1	6	464	1527	60·11	..	..
2.—RIBBLE—Douglas. 156 sq. mi.									
Wigan WW (Billing Higher End)	R. B. Donald, Esq., C.E.	12	3	6	374	1027	40·44	219	178
Orrell (Upholland Gram. Sch.)	C. H. Cox, Esq.	5	1	0	320	1164	45·84	265	200
Wigan W. W. (Worthington)	R. B. Donald, Esq., C.E.	8	1	6	225	1207	47·50	239	190
Horwich (Lower Rivington)	Col. J. R. Davidson, C.E.	8	1	0	440	1335	52·58	254	199
Horwich (Lower Knoll)	Col. J. R. Davidson, C.E.	8	1	4	742	1441	56·74	..	..
Rivington (Brown Hill)	Col. J. R. Davidson, C.E.	8	1	4	843	1391	54·76	..	..
Rivington (Stoneshouse) No. 1	Col. J. R. Davidson, C.E.	8	1	4	623	1307	51·45	250	208
Rivington (Stoneshouse) No. 2	Col. J. R. Davidson, C.E.	8	1	4	623	1290	50·77	..	..
Rivington (Hurst Hill)	Col. J. R. Davidson, C.E.	8	1	10	1029	1444	56·86	..	..
Rivington (Great Hill)	Col. J. R. Davidson, C.E.	8	1	8	1240	1534	60·40	..	..
Rivington (Coppice Stile)	Col. J. R. Davidson, C.E.	8	1	8	879	1338	52·68	..	..
Rivington (Gamekeeper's)	Col. J. R. Davidson, C.E.	8	0	8	850	1560	61·43	..	..
Leyland (Worden Hall)	(+A) H. Nowell Farrington, Esq.	5	1	0	125	1181	46·51	252	190
Bamber Bridge (Cuerden Hall)	R. A. Tatton, Esq.	5	1	0	230	1147	45·16	231	192
3.—COAST STREAMS. 52 sq. mi.									
Birkdale (Westcliffe Road)	late Percy W. Hoyle, Esq.	5	0	6	35	956	37·64	221	176
Birkdale (Burlington Rd.)	J. Baxendell, Esq.	5	1	0	27	1002	39·46	..	..
Southport (Hesketh Park) (+A)	J. Baxendell, Esq.	5	1	0	38	976	38·41	230	174
Southport (Hesketh Park)	J. Baxendell, Esq.	8	1	0	38	988	38·88	230	180
Southport (Hesketh Park)	J. Baxendell, Esq.	5	16	0	66	926	36·46	223	173
4.—OUSE—Aire. 2 sq. mi.									
Worthdale (Watershed Res.)	M. R. Barnett, Esq., C.E.	5	1	0	1115	1394	54·89	246	200
Foulridge (Canal Office)	Leeds & Liverpool Canal Co.	8	1	0	497	1347	53·05	..	..

## DIVISION VIII.—NORTH-WESTERN COUNTIES—(con.)

STATIONS.	AUTHORITIES.	Rain Gauge.				Depth of Rain.		Days with ·01 in. or more.	Days with ·04 in. or more.
		Diam.	Height Ground	above Sea Level.	1923				
NORTH LANCASHIRE. (Area, 609 sq. mi.)		in.	ft.	in.	ft.	mm.	in.		
1.—DUDDON & C. 77 sq. mi.									
d Barrow-in-Furness (Gas Works)	Claude Diamond, Esq. . . . .	11	3	0	17	1348	53·07	229	181
d Barrow-in-Furness(SewageWks)	W. C. Persey, Esq., C.E. . . . .	5	1	0	21	1292	50·88	229	184
d Little Urswick (North View) . . .	J. Dobson, Esq. . . . .	5	1	6	130	1470	57·86	240	188
d Ulpha . . . . .	Claude Diamond, Esq. . . . .	11	1	6	251	1914	75·37	272	220
d Duddon Valley (SeathwaiteVic)	Rev. F. K. Berry . . . . .	5	1	0	348	2502	98·49	264	221
Duddon Val. (Seathwaite Tarn)	Claude Diamond, Esq. . . . .	11	1	6	1221	3028	119·22	..	..
2.—LEVEN & C. 135 sq. mi.									
d Cartmel (Carke) . . . . .	R. Heathcote, Esq. . . . .	5	1	0	76	1389	54·68	223	190
d Cartmel (Holker Hall) . . . . .	Lord Richard Cavendish . . . . .	5	0	9	85	1555	61·21	255	201
d Ulverston (Pengwerne) . . . . .	C. J. Chapman, Esq. . . . .	5	1	3	130	1751	68·92	261	206
d Ulverston (Poaka Beck) . . . . .	Claude Diamond, Esq. . . . .	11	1	6	512	1660	65·35	255	218
Rusland Hall . . . . .	Mrs. Archibald. . . . .	5	14	0	45	1463	57·58	234	187
Coniston Park . . . . .	W. S. Wilson, Esq.* . . . .	5	1	2	305	2545	100·19	188	..
d Coniston (School Garden) . . . .	W. J. Rich, Esq. . . . .	5	1	0	180	3150	124·02	..	..
d Hawkshead(TowerBankSawrey)	Miss Alcock-Beck . . . . .	5	2	0	342	2168	85·36	245	207
d Hawkshead (Highfield) . . . . .	W. L. Turner, Esq. . . . .	5	0	6	400	2731	107·50	251	225
m Hawkshead (Black Fell) . . . . .	Miss C. Marshall . . . . .	5	1	6	1055	2192	86·30	..	..
d Ambleside (Skelwith Fold) . . . .	Miss C. Marshall . . . . .	5	1	0	333	2675	105·33	251	220
3.—KENT & C. 45 sq. mi.									
d Heysham Harbour . . . . .	Baldwin Bent, Esq. . . . .	5	1	6	27	1144	45·05	223	180
d Morecambe . . . . .	T. B. Lamb, Esq. . . . .	8	1	0	24	1177	46·36	226	182
d Yealand Conyers (Beechfield) . .	Miss A. J. Roper . . . . .	5	1	0	250	1284	50·54	242	191
d YealandConyers(MorecambeLo.)	J. Rawlinson Ford, Esq. . . .	5	1	0	278	1395	54·90	235	186
Grange-over-Sands(EdenMount)	Miss K. F. Brothers . . . . .	5	1	6	280	1450	57·09	241	194
d Grange-over-Sands (Nutwood) . . .	Miss S. M. Arkwright . . . . .	5	1	0	140	1408	55·42	233	194
d Grange-over-Sands (Holmcroft).	Robert Rhodes, Esq. . . . .	5	2	4	300	1617	63·65	251	199
d Lindale (Ellerhow) . . . . .	H. T. Gnosselius, Esq. . . . .	5	1	2	360	1662	65·43	216	185
d Cartmel Fell (The Schoolhouse)	R. J. Cragghill, Esq. . . . .	5	5	0	220	1800	70·87	246	210
4.—LUNE. 135 sq. mi.									
d Hampson-in-Ellel . . . . .	W. G. Welch, Esq. . . . .	5	1	0	145	1253	49·34	245	188
Quernmore (Brow Top) . . . . .	F. Hill, Esq., C.E. . . . .	8	1	0	552	1427	56·19	228	210
Bowland Forest (Higher Salter) . . .	J. T. Sanderson, Esq. . . . .	5	1	0	1014	1577	62·09	..	..
Bowland Forest (Whiteray) . . . .	J. T. Sanderson, Esq. . . . .	5	1	0	1139	2023	79·66	..	..
Bowland Forest (Lower Salter) . . .	J. T. Sanderson, Esq. . . . .	5	1	0	575	1957	77·04	..	..
d Lancaster (Strathspey) . . . . .	A. B. S. Welch, Esq. . . . .	5	1	0	85	1263	49·74	244	190
Lancaster (Blea Tarn Res.) . . . .	F. Hill, Esq., C.E. . . . .	8	1	0	330	1162	45·76	244	185
d Lancaster (Greg Obsy.) . . (+A)	Neville Holden, Esq. . . . .	8	1	0	312	1363	53·68	245	193
d Lancaster (Lune Aqueduct) . . . .	J. H. Thurston, Esq., C.E. . . .	8	3	0	74	1258	49·51	230	188
Caton (Escowbeck) . . . . .	Neville Holden, Esq.† . . . .	..	..	..	158	1483	58·37	..	..
d Caton (Schoolhouse) . . . . .	W. Shaw, Esq. . . . .	5	1	6	170	1532	60·30	216	184
Wennington (Tatham Rectory)	Rev. A. S. Roberts . . . . .	5	1	3	150	1451	57·12	..	175
d Leck Vicarage . . . . .	Rev. J. Turner . . . . .	5	1	1	400	1288	50·71	244	201
5.—WYRE & C. 213 sq. mi.									
d Weeton Reservoir . . . . .	Fylde Water Board . . . . .	5	1	0	133	1102	43·39	218	186
d Weeton Reservoir . . . . .	Fylde Water Board . . . . .	5	1	0	108	1097	43·18	217	189
d Blackpool (Met. Observatory) . . .	E. W. Rees Jones, Esq., M.D . .	5	1	0	67	1047	41·22	246	179
d Barton (Newsham House) . . . . .	W. B. S. Smith, Esq. . . . .	5	1	0	101	1194	47·00	232	190
d Kirkham (Elswick Lodge) . . . . .	L. G. King, Esq. . . . .	5	1	4	52	1121	44·15	237	186
d St. Michael's-on-Wyre(RoseCot.)	J. Moss, Esq. . . . .	5	1	0	27	1145	45·09	242	198
d St. Michael's-on-WyreVicarage	Ven. Archdeacon Hornby . . . .	5	1	0	26	1168	45·98	243	184
d Fleetwood . . . . .	(R) E. Frobisher, Esq. . . . .	8	1	8	29	1115	43·91	232	174
m Garstang (HolmeHo.,Bleasdale)	A. Wilson, Esq. . . . .	5	1	0	650	1817	71·54	..	..
m Garstang (Fairsnape Fell) . . . . .	A. Wilson, Esq. . . . .	5	1	0	1630	2446	96·29	..	..
d Garstang (Barnacre Reservoir).	Fylde Water Board . . . . .	5	1	0	616	1516	59·67	255	196
d Garstang (Grizedale Reservoir)	Fylde Water Board . . . . .	5	1	0	517	1472	57·94	248	195
Garstang (Calder Intake) . . . . .	Fylde Water Board . . . . .	5	1	0	632	1490	58·66	..	..
Garstang (Grizedale Intake) . . . .	Fylde Water Board . . . . .	5	1	0	644	1393	54·85	..	..

\* Per Miss Cordelia Marshall.

† Per Lancaster Astronomical and Scientific Society.

## DIVISION VIII.—NORTH-WESTERN COUNTIES—(con.).

STATIONS.	AUTHORITIES.	Rain Gauge.				Depth of Rain.		Days with ·01 in. or more.	Days with ·04 in. or more.
		Diam.	Height Ground	above Sea Level.					
NORTH LANCASHIRE—(con.).		in.	ft.	in.	ft.	mm.	in.		
5.—WYRE & C.—(con.).									
Wyresdale (Abbeystead Res.)	F. Hill, Esq., C.E.....	8	1	0	366	1756	69·14	254	216
M Quernmore (Old Gauge Basin)	F. Hill, Esq., C.E.....	8	1	0	963	1513	59·58	..	..
M Wyresdale (Wardstone)	.....F. Hill, Esq., C.E.....	8	1	0	1440	2028	79·85	..	..
6.—INSULAR. 4 sq. mi.									

## DIVISION IX.—YORKSHIRE.

## WEST RIDING. (Area, 2791 sq. mi.)

<b>1.—LUNE. 178 sq. mi.</b>										
D	Austwick (Leigh House)	R. Stockdale, Esq.	5	1	0	500	1531	60·28	240	189
d	Bentham (Felstead)	A. W. Wilson, Esq.	5	1	0	310	1418	55·82	226	170
D	High Bentham (Inglefield)	Mr. Geoffrey Holmes	5	1	0	412	1397	55·01	245	191
D	Ingleton (Kingsdale Head)	Mr. R. Ireton	5	1	0	994	2445	96·24	235	225
	Baugh Fell (Rawthey Gill Hd.)	Howard Wilson, Esq.	5	1	0	2075	2774	109·23	..	..
D	Sedbergh (Brigg Flats)	The Misses Wilson	5	1	0	305	1859	73·20	248	201
D	Sedbergh (Akay)	C. E. Taylor, Esq.	5	1	0	400	2035	80·13	247	211
D	Sedbergh (Bynac)	Mrs. B. Wilson	5	1	0	480	1823	71·77	244	208
D	Sedbergh (Havera Bank)	Albert Wilson, Esq.	5	1	0	485	1899	74·76	255	207
	Sedbergh (Ashbeck Head)	Albert Wilson, Esq.	5	1	0	1395	2095	82·50	..	..
	Sedbergh (Dummacks)	Albert Wilson, Esq.	5	1	0	2060	2997	117·98	..	..
	Sedbergh (Dummacks, Red Gill)	Albert Wilson, Esq.	5	1	0	1950	3268	128·67	..	..
<b>2.—RIBBLE. 225 sq. mi.</b>										
D	Colne (Laneshaw Reservoir)	J. F. Bedford, Esq., C.E.	5	1	0	842	1174	46·23	238	197
d	Barnoldswick (Rainhall Road)	Asa Burniston, Esq.	5	1	2	549	1240	48·83	238	196
	Barnoldswick (Greenberfield L.)	Leeds & L'pool Canal Co.	8	1	0	488	1338	52·67	..	..
	Slaidburn (Knowlmer Manor)	W. Peel, Esq.	5	1	0	417	1647	64·84	..	..
	Slaidburn (Thorneyholme)	R. A. Tatton, Esq.	5	2	0	380	1742	68·60	..	..
	Slaidburn (Hareden Brook)	J. H. Smethurst, Esq., C.E.	8	1	2	540	2324	91·49	..	..
M	Slaidburn (Langden Brook)	J. H. Smethurst, Esq., C.E.	8	1	2	556	2339	92·08	..	..
	Slaidburn (Dunsop Houses)	A. T. Gooseman, Esq., C.E.	8	1	6	450	2119	83·43	240	208
M	Slaidburn (Middle Knoll)	A. T. Gooseman, Esq., C.E.	8	2	6	1298	2031	79·96	..	..
	Slaidburn (Brennand)	A. T. Gooseman, Esq., C.E.	8	1	6	820	2366	93·14	242	228
	Slaidburn (Croasdale House)	A. T. Gooseman, Esq., C.E.	8	1	6	600	2003	78·87	215	202
	Slaidburn (Croasdale Valley)	A. T. Gooseman, Esq., C.E.	8	1	6	720	2017	79·39	216	209
	Slaidburn (Whitendale)	A. T. Gooseman, Esq., C.E.	8	1	6	830	2344	92·27	242	225
M	Slaidburn (Cabin Hill)	A. T. Gooseman, Esq., C.E.	8	3	1	1559	2352	92·59	..	..
M	Slaidburn (Baxton Fell)	A. T. Gooseman, Esq., C.E.	8	2	6	1540	2175	85·63	..	..
M	Slaidburn (Saddle Hill)	A. T. Gooseman, Esq., C.E.	5	2	6	1475	1960	77·15	..	..
D	Settle (Gas Works)	J. W. Shepherd, Esq.	8	1	0	450	1509	59·40	223	192
D	Settle (Giggleswick School)	A. Russell, Esq.	8	1	0	500	1397	55·02	237	188
d	Horton-in-Ribblesdale	Nathaniel Hunt, Esq.	5	1	0	800	1640	64·58	..	..
<b>3.—MERSEY—Irwell. 2 sq. mi.</b>										
<b>4.—MERSEY, UPPER. 35 sq. mi.</b>										
	Greenfield (Upperwood Moor)	G. H. Raddin, Esq., C.E.	5	1	0	1518	1383	54·44	..	..
D	Greenfield (Chew Mount)	G. H. Raddin, Esq., C.E.	5	1	0	1578	1552	61·10	267	230
	Greenfield (Chew Reservoir)	G. H. Raddin, Esq., C.E.	5	1	0	1648	1553	61·13	..	..
D	Greenfield (Yeoman Hey)	G. H. Raddin, Esq., C.E.	5	1	0	759	1583	62·31	244	228
	Greenfield (Ashway Moss)	G. H. Raddin, Esq., C.E.	5	1	0	1581	978	38·51	..	..
	Greenfield (Birchen Clough)	G. H. Raddin, Esq., C.E.	5	1	0	1018	1574	61·96	..	..
M	Saddleworth Station	E. H. d'E. Darby, Esq., C.E.	5	4	0	630	1351	53·21	..	..
	Oldham (Strinesdale)	C. J. Batley, Esq., C.E.	5	4	0	815	1162	45·74	253	201
	Oldham (Strinesdale) New	C. J. Batley, Esq., C.E.	5	1	0	791	1385	54·52	253	206
D	Standedge (Cas Shaw Broadh'd)	C. J. Batley, Esq., C.E.	8	4	6	875	1399	55·07	268	210
D	Standedge (Cas Shaw Broadh'd) New	C. J. Batley, Esq., C.E.	8	1	0	857	1602	63·08	268	231
	Standedge (Cas Shaw Cudworth)	C. J. Batley, Esq., C.E.	5	4	6	1410	901	35·49	268	191
M	Standedge (Redbrook Res.)	E. H. d'E. Darby, Esq., C.E.	8	1	0	1150	1526	60·07	..	..
	Denshaw (Ox Hey)	C. J. Batley, Esq., C.E.	8	4	6	1030	1429	56·26	262	202

## DIVISION IX.—YORKSHIRE—(con.).

STATIONS.	AUTHORITIES.	Rain Gauge.				Depth of Rain.		Days with ·01 in. or more	Days with ·04 in. or more.
		Diam.	Height Ground	above Sea Level.		1923			
WEST RIDING—(con.).		in.	ft.	in.	ft.	mm.	in.		
4.—MERSEY, UPPER—(con.).									
Denshaw (Ox Hey) <i>New</i> .....	C. J. Batley, Esq., C.E.....	8	1	0	1031	1550	61·01	262	203
Denshaw (Crawshaw Hey) ....	C. J. Batley, Esq., C.E.....	8	1	0	956	1532	60·32	262	212
D Denshaw (New Year's Bridge) ..	C. J. Batley, Esq., C.E. ..	8	4	0	994	1246	49·05	262	201
D Denshaw (New Year's Br.) <i>New</i> C.	J. Batley, Esq., C.E.....	8	1	0	986	1380	54·33	262	210
5.—TRENT—Derwent. 7 sq. mi.									
Derwent Dale (Abbey Brook) 65 S. B.	Winser, Esq., C.E. ..	5	1	0	825	1330	52·36	..	..
Derwent Dale (Howden Cl'gh) 64 S. B.	Winser, Esq., C.E. ..	5	1	0	1030	1289	50·74	..	..
Derwent Dale (Howden Ho.) 19 S. B.	Winser, Esq., C.E. ..	8	1	0	890	1280	50·39	..	..
Derwent Dale (Sandy Lee) No. 7 S. B.	Winser, Esq., C.E. ..	5	1	0	1340	1368	53·87	..	..
6.—TRENT—Left Bank Tributaries. 143 sq. mi.									
D Lindrick Common (Woodside) . J. F.	Eardley, Esq.....	5	1	0	250	698	27·48	..	136
D Woodsetts Grange (Old Vicarage) H. P.	Marsh, Esq.....	5	1	0	235	749	29·48	213	145
D Doncaster (Carr House Hosp.) . Dr. D. L.	Anderson .....	5	1	1	56	628	24·71	175	125
7.—OUSE—Don. 564 sq. mi.									
D Sheffield (Stumperlow Hall) .1 J. Dixon,	Esq. ....	5	1	0	730	1065	41·95	236	172
D Sheffield (Stumperlow Hall) .2 J. Dixon,	Esq. ....	5	1	0	770	1086	42·76	237	174
D Sheffield W.W. (Redmires Res.) L. S. M.	Marsh, Esq., C.E....	10	5	0	1110	1181	46·51	252	191
D Sheffield W.W. (Redmires Res.) L. S. M.	Marsh, Esq., C.E....	8	4	0	1110	1165	45·85	..	..
D Sheffield W.W. (Rivelin) . . . (R) L. S. M.	Marsh, Esq., C.E....	10	4	0	564	1098	43·24	240	165
D Sheffield W.W. (Rivelin) . . . . L. S. M.	Marsh, Esq., C.E....	8	4	0	564	1103	43·43	..	..
D Sheffield W.W. (Crookes) . . . (R) L. S. M.	Marsh, Esq., C.E....	10	2	0	629	887	34·90	214	144
D Sheffield W.W. (Crookes) . . . . L. S. M.	Marsh, Esq., C.E....	8	2	0	629	887	34·92	..	..
D Sheffield (Weston Park) . . . . . E.	Howarth, Esq. ....	8	1	0	430	884	34·80	226	141
D Darnall (High Hazels Museum) . E.	Howarth, Esq. ....	8	1	0	285	751	29·58	199	131
D Loxley Valley (Broadcar) . . . . L. S. M.	Marsh, Esq., C.E....	5	1	0	1004	1300	51·17	..	..
D Loxley V. (Oaks Fm. Damflask) L. S. M.	Marsh, Esq., C.E....	5	1	0	650	1039	40·91	..	..
D Loxley V. (Loftshaw, Strines) . L. S. M.	Marsh, Esq., C.E....	5	1	0	1011	1235	48·61	..	..
D Loxley V. (Dale Dike Res.) . . . L. S. M.	Marsh, Esq., C.E....	8	3	0	715	1155	45·47	..	..
D Loxley V. (Thornseat) . . . . . L. S. M.	Marsh, Esq., C.E....	5	1	0	1326	1228	48·33	..	..
D Loxley V. (Rocher Flat) . . . . . L. S. M.	Marsh, Esq., C.E....	5	1	0	1106	985	38·76	..	..
D Loxley V. (Emlin Moor) . . . . . L. S. M.	Marsh, Esq., C.E....	5	1	0	998	1227	48·29	..	..
D Rotherham (Ulley Res.) . . . (2) Vincent	Turner, Esq., C.E. .	5	1	0	175	681	26·83	170	120
D Rotherham (Ulley Res.) . . . (1) Vincent	Turner, Esq., C.E. .	5	1	0	184	634	24·97	169	118
D Rotherham (Ulley Res.) . . . (3) Vincent	Turner, Esq., C.E. .	5	1	0	132	670	26·37	169	118
D Wincobank (Sewage Works) (R) J. Haworth,	Esq. ....	8	2	0	99	673	26·50	177	120
D Rotherham (Sitwell Vale) . . . . Mr. G.	Howard .....	5	1	0	300	772	30·39	184	133
D Rotherham (Moorgate Grange) late R.	Dyson, Esq. ....	5	1	8	275	720	28·36	170	119
D Rotherham (Kimberw'rth Cem.) Vincent	Turner, Esq., C.E. .	5	1	0	245	723	28·48	209	135
D Rotherham (Aldwarke Sew. Wk.) James H.	Kershaw, Esq. .	5	1	4	71	714	28·11	214	130
D Rotherham (Thrybergh) . . . . . F. O.	Kirby, Esq., C.E. ..	8	1	0	184	693	27·28	178	129
D Chapeltown (Potter Hill) . . . . Mr. F.	Sherburn .....	8	5	0	583	733	28·86	199	142
D Conisborough (Firsby Res.) . . . F. O.	Kirby, Esq., C.E. ..	8	1	4	189	671	26·40	174	123
D Wentworth Woodhouse . . . . . Mr. A.	Third .....	5	0	10	360	717	28·22	..	131
D Mexborough . . . . . G. Fenwick Carter,	Esq. C.E. .	5	1	6	77	645	25·41	199	136
D Wortley (Service Reservoir) . . J. R.	Fox, Esq., C.E. ....	5	1	0	700	845	33·27	235	157
D Midhope Moor (Barnside) . . . . J. R.	Fox, Esq., C.E. ....	5	1	0	1000	1256	49·44	236	180
D Little Don Val. (Underbank Rs.) L. S. M.	Marsh, Esq., C.E. .	8	1	6	604	928	36·53	249	174
D Little Don Val. (Brockholes) . . L. S. M.	Marsh, Esq., C.E....	5	1	6	934	926	36·44	..	..
D Little Don Val. (Sheep House) . . L. S. M.	Marsh, Esq., C.E. .	5	1	6	974	929	36·59	..	..
D Little Don Val. (Bridge Lane) . . L. S. M.	Marsh, Esq., C.E....	8	1	0	761	1173	46·19	244	187
D Langsett Moor (Midhope) . . . . J. R.	Fox, Esq., C.E. ....	5	1	0	830	1127	44·39	247	179
D Langsett Moor (Up. Midhope) . . L. S. M.	Marsh, Esq., C.E....	8	1	6	925	1161	45·73	244	178
D Langsett Moor (Mickleden) . . . L. S. M.	Marsh, Esq., C.E....	5	1	6	1217	1383	54·45	..	..
D Langsett Moor (Catclough) . . . L. S. M.	Marsh, Esq., C.E....	8	1	6	1516	1425	56·09	..	..
D Langsett Moor (Fiddlers Green) L. S. M.	Marsh, Esq., C.E....	8	1	6	1493	1513	59·58	..	..
D Langsett Moor (Border Hill) . . . L. S. M.	Marsh, Esq., C.E....	5	1	6	1148	1423	56·01	..	..
D Langsett Moor (Swinden Lodge) L. S. M.	Marsh, Esq., C.E....	8	1	6	1037	1366	53·78	234	192
D Langsett Moor (Flouch Road) . . L. S. M.	Marsh, Esq., C.E....	8	1	0	960	1282	50·48	241	178

## DIVISION IX.—YORKSHIRE—(con.).

STATIONS.	AUTHORITIES.	Rain Gauge.				Depth of Rain. 1923	Days with ·01 in. or more.	Days with ·04 in. or more.
		Diam.	Height Ground	above Sea Level.				
WEST RIDING—(con.).		in.	ft.	in.	ft.	mm.	in.	
7.—OUSE—Don—(con.).								
D Wath-upon-Dearne (Chapel St.)	Dr. T. Crowley	8	2	2	188	661	26·01	214 135
D Bolton-upon-Dearne	T. Washington, Esq.	5	1	0	130	647	25·49	187 125
D Doncaster (Pumping Station)	F. O. Kirby, Esq., C.E.	5	1	6	30	667	26·24	174 140
D Doncaster (Avenue Road)	M. H. Stiles, Esq.	5	4	0	62	717	28·24	183 135
D Dunford Bridge Reservoir	H. Dearden, Esq., C.E.	12	2	0	1111	1537	60·51	250 201
Penistone (Ingbirchworth Res.)	J. R. Fox, Esq., C.E.	8	1	0	853	1015	39·94	246 157
Penistone (Broadstone Res.)	J. R. Fox, Esq., C.E.	8	1	0	853	1066	41·98	231 180
D Barnsley (Jordan Hill)	J. R. Fox, Esq., C.E.	5	1	0	460	747	29·42	214 145
D Cawthorne (Cannon Hall)	Capt. J. H. Pardoe	5	0	11	418	779	30·69	184 140
D Brodsworth Hall Gardens	Mr. F. W. Lamer	5	1	6	150	656	25·82	162 130
Barnsley (Burntwood Hall)	J. Dymond, Esq.	5	1	0	378	716	28·20	163 130
D Kirk Bramwith	H. A. Brundell, Esq., C.E.	5	1	0	17	723	28·45	182 141
d Hemsworth Rectory	Rev. F. W. Holmes	5	1	0	232	612	24·11	.. ..
D Badsworth (Rogerthorpe Man.)	Lt.-Col. W. J. F. Ramsden	8	1	2	150	713	28·06	188 137
D Ackworth School	E. Priestman, Esq.	8	1	0	100	696	27·39	193 125
D Ackworth (Hillthorpe)	Mrs. F. Hatchard	5	1	3	175	662	26·06	171 131
D Goole	Aire & Calder Navigation	5	2	0	18	603	23·72	167 129
8.—OUSE—Aire—Calder. 361 sq. mi.								
D Holmbridge (Yateholme Res.)	J. C. Barrowclough, Esq., C.E.	5	1	0	1009	1817	71·53	263 239
D Holmbridge (Yateholme Farm)	J. C. Barrowclough, Esq., C.E.	5	1	0	861	1561	61·45	263 220
Holmfirth (Holme Styas Res.)	Messrs. Mallinson & Son, C.E.	5	2	0	830	1074	42·30	.. ..
Holmfirth (Boshaw Whams R.)	Messrs. Mallinson & Son, C.E.	5	1	0	930	1118	44·00	.. ..
Meltham (Harden Moss)	J. W. Armitage, Esq., C.E.	8	1	0	1212	1485	58·48	.. ..
Meltham (Harden Moss) <i>new g.</i>	J. W. Armitage, Esq., C.E.	8	1	0	1212	1493	58·79	.. ..
Wessenden Head	J. W. Armitage, Esq., C.E.	8	1	0	1270	1188	46·76	.. ..
Wessenden Head <i>new g.</i>	J. W. Armitage, Esq., C.E.	8	1	0	1200	1324	52·11	.. ..
Wessenden (Holly Bank Moss)	J. W. Armitage, Esq., C.E.	8	1	0	1280	987	38·84	.. ..
Wessenden (Old Reservoir)	J. W. Armitage, Esq., C.E.	8	1	0	940	1312	51·67	.. ..
Wessenden (Butterley Moss)	J. W. Armitage, Esq., C.E.	8	1	0	1110	1497	58·95	.. ..
Wessenden (Bobus)	J. W. Armitage, Esq., C.E.	8	1	0	1200	1321	52·00	.. ..
Meltham (Brow Grains)	J. W. Armitage, Esq., C.E.	8	1	0	900	1485	58·47	.. ..
Meltham (Royd Edge)	C. L. Brook, Esq.	8	1	0	585	1531	60·28	.. ..
D Meltham (Harewood Lodge)	C. L. Brook, Esq.	8	1	0	514	1397	55·02	265 193
Meltham Grange	J. W. Armitage, Esq., C.E.	8	1	0	850	1320	51·98	.. ..
w Marsden Reservoir†	E. H. d'E. Darby Esq., C.E.	8	2	4	692	1621	63·84	.. ..
Marsden (Deer Hill)	J. W. Armitage, Esq., C.E.	8	1	0	1149	1328	52·29	.. ..
Marsden (Deer Hill) <i>new g.</i>	J. W. Armitage, Esq., C.E.	8	1	0	1149	1460	57·47	.. ..
D Slaithwaite (Blackmoorfoot)	J. W. Armitage, Esq., C.E.	8	1	0	800	1262	49·67	283 210
D Slaithwaite (Inglewood)	J. Woodhead, Esq.	5	1	0	546	1418	55·82	280 199
D Huddersfield (Carr End, Dalton)	Mr. T. Hey	8	1	0	350	898	35·37	229 162
Huddersfield (Bankfield, Golcar)	Miss Sykes	5	0	8	400	1207	47·53	212 186
D Huddersfield (Ravensknowle) (+ A)	C. Mosley, Esq.	8	0	11	328	839	33·03	226 158
D Huddersfield (Oakes) (No. 1)	S. Morris Bower, Esq.	5	1	0	772	1051	41·39	244 181
w Huddersfield (Oakes) (No. 2)	S. Morris Bower, Esq.	4	1	0	772	1048	41·25	.. ..
D Kirkheaton (Kirk Vale)	Miss A. Robson	8	1	0	220	797	31·39	211 157
D Rishworth Mr (G. Walden Edge)	C. Clemesha Smith, Esq., C.E.	5	0	10	1135	1556	61·26	255 213
w Rishworth (Stott Hall)	C. Clemesha Smith, Esq., C.E.	5	1	0	935	1427	56·16	.. ..
D Rishworth (Ringstone Res.)	C. Clemesha Smith, Esq., C.E.	5	1	0	990	1307	51·46	259 193
w Rishworth Moor (Greystones)	C. Clemesha Smith, Esq., C.E.	5	1	0	1175	1720	67·70	.. ..
w Soyland Moor (Summit)	C. Clemesha Smith, Esq., C.E.	5	1	0	1290	1477	58·13	.. ..
D Soyland Moor (Baitings Gate)	C. Clemesha Smith, Esq., C.E.	5	1	0	935	1661	65·40	258 210
w Soyland Moor (Manshead)	C. Clemesha Smith, Esq., C.E.	5	1	0	1240	1726	67·95	.. ..
D Horbury (Addingford Hos.)	J. H. Horsfall, Esq.	8	2	0	289	661	26·04	177 133
D Horbury (Highfields)	J. H. Green, Esq.	5	1	0	226	695	27·38	.. ..
D Mirfield (Cote Wall)	F. P. Mitchell, Esq.	8	1	0	200	943	37·14	210 161
D Wakefield (Northgate)	J. H. Garner, Esq.	8	1	0	174	649	25·53	157 133
D Wakefield (Clarence Park)	C. Clemesha Smith, Esq., C.E.	5	1	0	124	709	27·92	183 147
D Wakefield (Fieldhead Res.)	C. Clemesha Smith, Esq., C.E.	5	1	0	250	641	25·24	161 127
D Sowerby Br. (Haugh End) No. 4	J. Selwyn Rawson, Esq.	5	0	8	450	1337	52·63	246 189

† Gauge on a steep bank.

## DIVISION IX.—YORKSHIRE—(con.).

STATIONS.	AUTHORITIES.	Rain Gauge.				Depth of Rain.		Days with ·01 in. or more.	Days with ·04 in. or more.
		Diam.	Height Ground	above Sea Level.		1923			
WEST RIDING—(con.).		in.	ft.	in.	ft.	mm.	in.		
8.—OUSE—Aire—Calder—(con.).									
D Walsden (Ramsden Reservoir)	H. A. Braddock, Esq., C.E.	8	1	0	993	1663	65·49	249	209
Walsden (Ramsden Hill)	H. A. Braddock, Esq., C.E.	5	1	0	1326	1641	64·60	..	..
D Todmorden (Fielden Hospital)	Mr. F. Rogers	5	1	0	650	1189	46·82	217	193
D Todmorden (Sourhall Hospital)	Mr. F. Rogers	5	1	0	1020	1778	69·99	265	210
D Halifax (Public Library)	E. Green, Esq.	8	1	0	625	1020	40·16	218	162
D Batley (Staincliffe Reservoir)	J. C. Barrowclough, Esq., C.E.	5	1	0	492	752	29·61	190	145
D Ardsley Reservoir	No. 1 C. Clemesha Smith, Esq., C.E.	5	1	2	395	757	29·81	214	146
D Ardsley Reservoir	No. 2 C. Clemesha Smith, Esq., C.E.	5	1	2	326	764	30·09	214	147
D Ardsley (Jaw Hill Filters)	C. Clemesha Smith, Esq., C.E.	5	1	0	315	699	27·50	167	135
M Halifax W.W. (Albert)	E. P. Brook, Esq., C.E.	5	1	0	795	1124	44·25	..	..
M Halifax W.W. (Gibbet)	E. P. Brook, Esq., C.E.	5	3	9	568	1062	41·81	..	..
M Halifax W.W. (Ramsden Wood)	E. P. Brook, Esq., C.E.	8	1	2	816	1220	48·04	..	..
D Hebden Bridge (Falling Royd)	A. R. Crossley, Esq.	4	1	0	479	1468	57·80	247	202
D Hebden Bridge (Burnside)	J. Hoyle, Esq.	5	1	0	825	1366	53·79	250	199
M Halifax W.W. (Castle Carr Lo.)	E. P. Brook, Esq., C.E.	5	0	6	1060	1300	51·18	..	..
M Halifax W.W. (Midgley Moor)	E. P. Brook, Esq., C.E.	8	0	9	1350	1321	51·99	..	..
M Halifax W.W. (Warley Moor)	E. P. Brook, Esq., C.E.	8	1	2	1325	1350	53·15	..	..
M Halifax W.W. (Ogden)	E. P. Brook, Esq., C.E.	5	0	10	990	1282	50·48	..	..
M Halifax W.W. (Ovenden Moor)	E. P. Brook, Esq., C.E.	8	1	9	1375	1199	47·19	..	..
M Halifax W.W. (Widdop)	E. P. Brook, Esq., C.E.	5	1	3	1050	1486	58·49	..	..
M Hal. W.W. (Walshaw Dean Lo.)	E. P. Brook, Esq., C.E.	5	1	0	1040	1497	58·93	..	..
M Halifax W.W. (Walshaw Dean)	E. P. Brook, Esq., C.E.	8	1	0	1380	1185	46·65	..	..
9.—OUSE—Aire. 504 sq. mi.									
D Garforth (Manor Farm)	Dr. A. G. Ruston	8	1	2	194	630	24·80	199	121
Bradford (Grange Rd., Horton)	Mr. A. E. Chilton	5	3	0	450	939	36·99	233	171
Bradford (Brayshaw Reservoir)	L. Mitchell, Esq., C.E.	5	1	0	982	1019	40·11	216	173
D Bradford (Lister Park)	H. Lander, Esq.	8	1	0	439	966	38·03	222	163
Bradford (Thornton Moor Filters)	L. Mitchell, Esq., C.E.	5	1	0	1190	1436	56·55	270	208
Bradford (Stubden Res.) No. 8	L. Mitchell, Esq., C.E.	5	1	0	1071	1466	57·72	260	209
M Bradford (Nan Scar, Oxenhope)	L. Mitchell, Esq., C.E.	5	1	0	1101	1547	60·92	..	..
M Bradford (Stairs Top, Oxenhope)	L. Mitchell, Esq., C.E.	5	1	0	1360	1714	67·48	..	..
Bradford (Leeming Reservoir)	L. Mitchell, Esq., C.E.	5	1	0	850	1375	54·13	259	199
Bradford (Doe Park Reservoir)	L. Mitchell, Esq., C.E.	5	1	0	760	1270	49·99	251	194
M Bradford (Leeshaw Res.)	L. Mitchell, Esq., C.E.	5	1	0	875	1698	66·84	..	..
Bradford (Chellow Dean Res.)	L. Mitchell, Esq., C.E.	5	1	0	645	1039	40·91	214	186
Bradford (Chellow Heights Res.)	L. Mitchell, Esq., C.E.	5	1	0	848	994	39·15	252	181
Bradford (Hewenden Res.)	L. Mitchell, Esq., C.E.	5	1	0	701	1206	47·47	240	190
Bradford (Heaton Reservoir)	L. Mitchell, Esq., C.E.	5	1	0	531	937	36·87	243	174
Leeds (Wortley Reservoir)	C. G. Henzell, Esq., C.E.	8	0	9	307	772	30·39	223	153
Leeds (Knostrop)	C. G. Henzell, Esq., C.E.	8	0	9	72	666	26·23	177	124
Leeds (Great George Street)	C. G. Henzell, Esq., C.E.	5	0	9	180	768	30·23	222	155
D Leeds (Museum)	H. Crowther, Esq.	8	46	0	177	724	28·52	203	136
D Leeds (Kingfisher)	Greevz Fysher, Esq.	5	14	0	247	740	29·13	..	138
Leeds (Woodhouse Moor)	C. G. Henzell, Esq., C.E.	8	0	9	307	750	29·54	..	138
D Seacroft (Leeds City Hospital)	Dr. A. E. Pearson	8	1	0	236	858	33·77	228	157
Leeds (Weetwood Res.) No. 2	C. G. Henzell, Esq., C.E.	8	0	9	328	800	31·48	216	161
Leeds (Gledhow Grove)	F. J. Kitson, Esq.	5	2	6	285	777	30·60	191	..
D Leeds (Harrogate Road)	Greevz Fysher, Esq.	5	4	0	404	775	30·50	..	136
Leeds (Allerton Hill)	T. Harding Churton, Esq.	5	0	7	418	746	29·38	..	..
D Shipley (Glenholme)	M. E. Burton, Esq.	5	0	9	370	973	38·29	224	175
D Haworth (Harbour Lodge)	M. R. Barnett, Esq., C.E.	8	1	0	1187	1641	64·61	250	210
D Haworth (Lower Laithe Res.) (+A)	M. R. Barnett, Esq., C.E.	5	0	10	772	1499	59·02	264	206
D Oakworth (Oldfield Filters)	M. R. Barnett, Esq., C.E.	5	1	0	1008	1461	57·52	254	204
D Bingley (Sewage Works)	J. Slater, Esq.	5	1	1	227	1004	39·54	239	169
Bingley (Gilstead Filters)	L. Mitchell, Esq., C.E.	5	1	0	572	886	34·87	225	169
D Baildon	C. E. Bean, Esq.	8	1	0	365	845	33·25	228	159
D Adel (Lawns Wood Cemetery)	L. Hodgson, Esq.	5	1	0	475	1033	40·66	251	193
D Keighley (The Knowle)	P. Clough, Esq.	5	1	0	385	1221	48·08	230	195
D Keighley (Victoria Park)	Mr. R. Butterfield	5	1	0	304	1139	44·86	236	187
D Bingley (East Morton)	J. Rhodes, Esq.	5	2	0	530	932	36·71	243	171
D Baildon (Weecher Res.)	C. E. Bean, Esq.	5	0	6	825	987	38·84	223	184
Bingley (Sunnydale Reservoir)	L. Mitchell, Esq., C.E.	5	1	0	825	1159	45·61	258	184



## DIVISION IX.—YORKSHIRE—(con.).

STATIONS.	AUTHORITIES.	Rain Gauge.				Depth of Rain.		Days with ·01 in. or more.	Days with ·04 in. or more.
		Diam.	Height Ground	above Sea Level.	1923				
					in.	in.			
WEST RIDING—(con.).						in.	mm.		
9.—OUSE—Aire—(con.).									
d Salterforth(Barnoldswick W.W.)	J. W. Thompson, Esq.	8	1	4	832	1497	58·92	247	210
d Kelbrook(HigherBurntHillFm.)	J. E. Aldersley, Esq.	5	1	0	1050	1381	54·37	244	201
d Earby (Sewage Works) ..(+A)	J. E. Aldersley, Esq.	5	1	0	425	1259	49·58	243	198
d Silsden (Bolton Road)	A. Elder, Esq.	5	1	0	432	971	38·25	220	182
m Silsden (Gill Grange)	L. Mitchell, Esq., C.E.	5	1	0	883	1075	42·33	..	..
Silsden Reservoir	L. Mitchell, Esq., C.E.	5	1	0	560	1031	40·57	210	181
Silsden (Cringles Res. Site)	L. Mitchell, Esq., C.E.	5	1	0	760	1034	40·71	210	181
d Elslack (Moorside Farm)	J. W. Thompson, Esq.	5	0	7	835	1282	50·46	233	199
Carleton (Beech Hill)	W. Cyril Empson, Esq.	8	5	3	425	1218	47·97	..	..
d Skipton (Town Hall)	(A) A. E. W. Aldridge, Esq.	6	1	6	367	1059	41·70	213	178
Skipton (Hawthorne Cottage)	Leeds & Liv'pool Canal Co.	8	1	0	380	967	38·08	..	..
Gargrave(BanksHillBankNwtn)	Leeds & Liv'pool Canal Co.	8	1	0	545	1325	52·18	..	..
Gargrave (Ray Bridge Hill)	Leeds & Liv'pool Canal Co.	8	0	10	459	1101	43·33	..	..
d Rylstone Rectory	Rev. C. H. Lowe	5	0	7	708	1258	49·51	242	188
Winterburn (Long Hill)	Leeds & Liv'pool Canal Co.	8	0	9	705	1293	50·90	..	..
Winterburn (Brown Hill)	Leeds & Liv'pool Canal Co.	8	1	0	961	1484	58·41	..	..
d Malham Tarn	Mr. John Winskill	8	1	0	1292	1959	77·12	266	234
d Malham Tarn	Mr. John Winskill	5	1	0	1292	1987	78·22	266	234
10.—OUSE—Wharfe. 408 sq. mi.									
d Aberford (Lotherton Hall) ..(R)	Mrs. Trench Gascoigne	8	1	0	200	599	23·58	207	123
d Saxton Vicarage	Rev. C. D. Ash	5	2	0	95	681	26·81	205	136
d Bolton Percy (Bolton Lodge) (R)	Col. T. H. Morris, C.B.E.	8	1	0	30	704	27·71	207	141
Adel (Eccup, East)	C. G. Henzell, Esq., C.E.	8	0	9	375	832	32·76	232	162
Harewood (Arthington)	C. G. Henzell, Esq., C.E.	8	0	9	139	1026	40·41	206	164
d Harewood House	Countess of Harewood	5	0	10	300	871	34·29	180	146
d Otley (Sewage Works)	C. F. Hodgson, Esq., C.E.	5	1	0	172	797	31·36	171	137
Ilkley (Silverwell Cottage)	D. J. Barnes, Esq.	5	1	0	900	1242	48·88	271	197
d Ilkley (Beechwood Grove)	P. G. Marshall, Esq.	5	11	0	400	1125	44·30	234	171
d Ilkley (Spence's Garden)	J. M. Gameson, Esq., C.E.	5	1	0	314	1180	46·47	236	181
Leathley (Lindley Wood, S.)	C. G. Henzell, Esq., C.E.	8	0	9	312	953	37·54	244	175
d Ilkley (March Gill Reservoir)	C. F. Hodgson, Esq., C.E.	5	1	0	655	1101	43·34	256	181
d York (Chalfonts)	Arnold S. Rowntree, Esq.	5	1	0	50	793	31·20	230	139
d York (Cherry Hill)	Messrs. H. Richardson & Co.	5	1	6	50	706	27·79	182	139
d York (Museum Gardens)	W. Watson, Esq.	8	1	0	57	640	25·20	205	136
d York (The Retreat)	Dr. H. J. Mackenzie	5	1	0	68	701	27·59	200	139
York (Acomb Landing)	W. H. Humphreys, Esq.	5	1	0	40	700	27·57	180	141
m Skipton (Counter Hill)	L. Mitchell, Esq., C.E.	5	1	0	951	942	37·09	..	..
Skipton (Chelker Reservoir)	L. Mitchell, Esq., C.E.	5	1	0	730	1062	41·81	..	..
Fewston (Timble Ings)	C. G. Henzell, Esq., C.E.	8	0	9	912	1110	43·69	254	186
Fewston (Timble)	C. G. Henzell, Esq., C.E.	8	0	9	720	1010	39·77	232	177
Fewston (Swinsty, East)	C. G. Henzell, Esq., C.E.	8	0	9	460	986	38·83	219	174
Fewston, North	C. G. Henzell, Esq., C.E.	8	0	9	525	1009	39·73	237	183
Fewston (Blubberhouses)	C. G. Henzell, Esq., C.E.	8	0	9	575	1075	42·31	246	186
Bolton Abbey Estate Office	A. Downs, Esq.	5	1	2	368	1118	44·02	243	189
Barden Reservoir	L. Mitchell, Esq., C.E.	5	1	0	746	1371	53·96	246	201
Upper Barden Reservoir	L. Mitchell, Esq., C.E.	5	1	0	1170	1212	47·71	246	194
Thruscross (Lane Head)	C. G. Henzell, Esq., C.E.	8	0	9	950	804	31·66	217	157
m Burnsall (Thorpe Fell)	L. Mitchell, Esq., C.E.	5	1	0	1661	1271	50·04	..	..
m Burnsall (Sandbed Beck)	L. Mitchell, Esq., C.E.	5	1	0	676	1379	54·28	..	..
d Burnsall Rectory	Rev. Canon W. J. Stavert	8	4	8	503	1402	55·18	248	191
Grimwith Reservoir	L. Mitchell, Esq., C.E.	5	1	0	893	1312	51·65	249	193
m Grimwith (Trunla Hill)	L. Mitchell, Esq., C.E.	5	1	0	1201	1239	48·80	..	..
d Buckden	G. E. Clayton, Esq.	5	3	0	800	1822	71·74	222	202
d Oughtershaw Hall	Miss Woodd	5	1	6	1175	2229	87·76	219	216
11.—OUSE—Nidd. 254 sq. mi.									
d Wetherby (Stockeld Park)	R. J. Foster, Esq.	5	1	2	200	683	26·87	213	144
Spofforth (Sewage Works)	C. E. Rivers, Esq., C.E.	5	1	0	184	823	32·42	211	..
d Wetherby (Ribston Hall)	Mr. W. Simpson	5	1	2	130	829	32·63	..	..
m Harrogate W.W. (Ling Cottage)	A. S. West, Esq., C.E.	5	1	0	740	940	37·00	..	..
m Harrogate W.W. (Broad Dubb)	A. S. West, Esq., C.E.	5	1	0	725	995	39·18	..	..
m Harrogate W.W. (CobblersCott.)	A. S. West, Esq., C.E.	8	1	0	730	938	36·94	..	..
Harrogate W.W. (TenAcresRes.)	A. S. West, Esq., C.E.	8	1	6	620	928	36·53	..	..

## DIVISION IX.—YORKSHIRE—(con.).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain.		Days with ·01 in. or more.	Days with ·04 in. or more.	
		Diam.	Height Ground	above Sea Level.	1923				
WEST RIDING—(con.).		in.	ft.	in.	ft.	mm.	in.		
11.—OUSE—Nidd.—(con.).									
D Harrogate W.W. (Scargill Res.)	A. S. West, Esq., C.E. ....	8	1	0	646	951	37·44	223	168
Harrogate W.W. (Beaver Dyke R.)	A. S. West, Esq., C.E. ....	8	0	11	575	919	36·17	..	..
M Harrogate W.W. (John o' Gaunts)	A. S. West, Esq., C.E. ....	8	1	0	600	952	37·49	..	..
M Harrogate W.W. (Long Stoop)	A. S. West, Esq., C.E. ....	5	1	0	700	995	39·18	..	..
M Harrogate W.W. (Knab's Moor)	A. S. West, Esq., C.E. ....	5	1	0	700	912	35·90	..	..
D Harrogate (Harlow Moor Obsy.)	C. E. Rivers, Esq., C.E. ..	5	1	0	480	890	35·03	223	157
D Harrogate (Harlow Hill Res.)	A. S. West, Esq., C.E. ....	8	1	0	589	824	32·43	207	147
D Harrogate (Irongate Bridge Res.)	A. S. West, Esq., C.E. ....	8	1	6	455	925	36·41	209	161
D Knaresborough (Goldsbro Hall Gdns.)	R. Wilson, Esq. ....	5	1	0	112	763	30·05	213	143
D Knaresborough (The Abbey) ...	Rev. Canon J. T. Hartley .	5	1	0	140	776	30·54	199	156
Knaresborough (Water Tower)	A. S. West, Esq., C.E. ....	8	1	0	240	769	30·28	..	..
Harrogate (Bilton Sewage Works)	C. E. Rivers, Esq., C.E. ....	5	1	0	208	853	33·57	200	..
D Birstwith Hall	F. A. Aykroyd, Esq. ....	8	0	10	375	1095	43·10	210	188
D Birstwith (Swarcliffe)	Capt. C. S. Greenwood .	5	1	0	510	1033	40·69	209	172
D Greenhow Hill (Kell House)	Harold Bruff, Esq., C.E. .	5	1	0	1302	1451	57·13	212	182
Ramskill (Holme Ho. Gouthwaite)	L. Mitchell, Esq., C.E. ...	5	1	0	464	1198	47·17	219	182
Ramskill (Raygill House)	L. Mitchell, Esq., C.E. ...	5	1	0	925	1369	53·88	199	175
Ramskill	L. Mitchell, Esq., C.E. ....	5	1	0	450	1229	48·40	..	..
Nidderdale (High Riggs)	L. Mitchell, Esq., C.E. ...	5	1	0	1010	1485	58·45	..	158
M Nidderdale (East Gill Head)	L. Mitchell, Esq., C.E. ...	5	1	0	1710	1829	72·00	..	..
M Nidderdale (Rain Stang)	L. Mitchell, Esq., C.E. ...	5	1	0	1470	1522	59·92	..	..
Nidderdale (New Houses)	L. Mitchell, Esq., C.E. ...	5	1	0	755	1349	53·13	213	193
Nidderdale (West Houses)	L. Mitchell, Esq., C.E. ...	5	1	0	1165	1822	71·75	228	222
12.—OUSE—Ure. 110 sq. mi.									
Dallow Moor (Harper Hill)	C. G. Henzell, Esq., C.E. ...	8	0	9	858	997	39·27	213	176
D Ripon (Studley Royal Gardens)	Marquis of Ripon	5	1	6	271	850	33·47	207	146
D Ripon (The Red House)	F. D. Wise, Esq., C.E. ....	5	1	0	120	804	31·64	198	147
Kirkby Malzeard (Drovers' Inn)	C. G. Henzell, Esq., C.E. ...	8	0	9	576	1113	43·82	247	173
Kirkby Malzeard (Hawsett)	C. G. Henzell, Esq., C.E. ...	8	0	9	820	1113	43·81	227	181
Kirkby Malzeard (Hambleton H.)	C. G. Henzell, Esq., C.E. ...	8	0	9	1106	1079	42·49	..	..
Kirkby Malzeard (Bagwith Brae)	C. G. Henzell, Esq., C.E. ...	5	0	9	703	854	33·63	214	134
Kirkby M. (Stone & Ears Wham)	C. G. Henzell, Esq., C.E. ...	5	0	9	1118	911	35·88	..	..
EAST RIDING. (Area, 1176 sq. mi.)									
1.—OUSE—Left Bank Tributaries. 82 sq. mi.									
D York (Heslington)	Hn. L. de Yarbrough-Bateson	8	0	7	35	781	30·76	217	164
D York (Dunnington Hall)	Miss Hildyard	8	1	2	110	756	29·78	224	158
2.—OUSE—Derwent. 248 sq. mi.									
d Elvington (Woodhouse Grange)	A. T. Coulson, Esq. ....	5	1	0	39	615	24·20	..	..
D Warter	Mrs. J. Coxon	5	1	10	230	773	30·42	173	137
D Burythorpe Rectory	Rev. William Robinson	5	1	0	240	737	29·03	170	135
D Birdsall Gardens	Mr. J. Anderson	5	1	0	303	884	34·81	192	142
D Rillington (Scampston Hall)	W. H. St. Quintin, Esq. ...	5	1	6	100	803	31·60	210	147
D Ganton (Ganton Hall)	Harold Wrigley, Esq. ....	5	2	0	250	818	32·21	218	145
Hunmanby (Holly Bank)	Miss Ackland	5	1	2	225	641	25·25	..	..
3.—HUMBER—Left Bank Tributaries. 675 sq. mi.									
D Spurn Head	The Meteorological Office .	8	1	0	26	584	22·97	192	123
D Patrington (Rose Cottage)	Miss H. Kirman	5	2	6	46	665	26·19	159	122
D Hull (Pearson Park)	H. B. Witty, Esq. ....	5	0	10	8	737	29·02	224	138
D Hull (Springhead)	C. B. Newton, Esq., C.E. ...	5	1	0	16	766	30·17	228	143
D Roos (Northend)	Miss F. Brown	5	0	8	56	704	27·71	195	135
D Newport (Co. School)	E. C. Wright, Esq. ....	5	0	8	9	646	25·42	174	122
D Cottingham (Water Works)	C. B. Newton, Esq., C.E. ...	5	1	0	26	653	25·73	191	127
D North Cave (The Croft)	Major W. H. Carver	8	1	0	35	809	31·87	193	144
D Holme-on-Spalding-Moor	C. J. Pybus, Esq. ....	8	1	0	32	767	30·21	188	143
Beverley (E. Riding Mental Hosp.)	Dr. E. S. Simpson	5	1	0	175	702	27·65	215	155
Beverley (New Walk)	W. Evans, Esq., C.E. ....	5	3	0	38	739	29·11	219	133
Beverley (Hull Bridge)	W. Evans, Esq., C.E. ....	5	2	0	11	656	25·82	199	140
D Market Weighton (Dalton Holme)	Mr. J. P. Jobling	8	6	0	120	793	31·22	209	151
Brandesburton (Hempholm Lk.)	W. Evans, Esq., C.E. ....	5	2	6	11	605	23·82	182	139
D Lowthorpe (The Elms)	F. K. Hawes, Esq. ....	5	1	0	63	715	28·13	178	132

## DIVISION IX.—YORKSHIRE—(con.).

STATIONS.	AUTHORITIES.	Rain Gauge.				Depth of Rain.		Days with ·01 in. or more.	Days with ·04 in. or more.
		Diam.	Height Ground	above Sea Level.	1923				
EAST RIDING—(con.).		in.	ft.	in.	ft	mm.	in.		
4.—EAST COAST STREAMS. 171 sq. mi.									
d Bridlington (Corpn. Nurseries)	S. R. Crofts, Esq.	5	1	0	60	715	28·14	221	141
d Bridlington (Grammar School)	G. T. Reeve, Esq.	8	1	0	57	683	26·88	185	146
d Wold Newton Hall	Major Ralph E. Stuart	5	1	6	175	776	30·54		132
d Ganton (Willerby Wold)	Major W. F. Wormald	5	0	9	565	773	30·43	193	139
d Filey Vicarage	Rev. Canon A. N. Cooper	5	1	0	95	747	29·42	227	142
NORTH RIDING. (Area, 2155 sq. mi.)									
1.—OUSE—Ure. 273 sq. mi.									
d Masham Moor (Roundhill Res.)	A. S. West, Esq., C.E.	8	1	0	743	1250	49·21	270	204
Masham Moor (Somerside)	C. G. Henzell, Esq., C.E.	5	0	9	928	1155	45·48	237	197
Masham Moor (High Sour Mire)	C. G. Henzell, Esq., C.E.	5	0	9	884	797	31·38		
Masham Moor (Leighton Res.)	C. G. Henzell, Esq., C.E.	5	0	9	634	1009	39·73	227	179
Masham Moor (Towler Hill)	C. G. Henzell, Esq., C.E.	8	0	9	820	1071	42·18	241	179
Masham Moor (Breary Bank)	C. G. Henzell, Esq., C.E.	5	0	9	600	1107	43·58	240	177
Masham Moor (Healey Pasture)	C. G. Henzell, Esq., C.E.	8	0	9	620	1063	41·85	243	172
Masham Moor (Low Houses)	C. G. Henzell, Esq., C.E.	5	0	9	693	1140	44·88	259	194
d Clifton Castle Gardens	Lady Cowell	5	1	0	360	863	33·99	183	135
Middleham (Cotescue)	A. Rowntree, Esq.	5	1	0	600	890	35·04		
d Middleham (Castle Hill)	Col. P. H. Hammond, C.B.	5	1	0	470	960	37·78	213	153
d Middleham (The Deanery)	Rev. H. G. Topham	5	1	0	450	986	38·82	202	156
West Witton (Ivy House)	J. B. Espiner, Esq.	5	1	0	606	1024	40·32	226	165
d Leyburn (Bolton Hall)	Mr. F. Scrivener	8	1	0	420	1057	41·63	222	158
d Askrigg (Worton)	Rev. W. M. Atkinson	5	1	0	700	1124	44·25	219	174
d Hawes (The Stone House)	H. Arden Crallan, Esq.	5	1	6	845	1692	66·63	218	204
2.—OUSE—Swale. 569 sq. mi.									
Sessay Rectory	Rev. F. Payne Gallwey	5	1	0	113	714	28·12		
d Dalton Parsonage	Rev. G. H. Chilman	5	1	0	79	723	28·48		134
d Carlton Hushwaite	W. R. Bagley, Esq.	5	1	0	190	779	30·69	216	151
d Coxwold (The Old Hall)	H. Geipel, Esq.	5	1	6	260	825	32·49		152
d Baldersby (Baldersby Park)	Mr. J. E. Hathaway	10	1	6	100	685	26·97	183	132
Burniston (Camp Hill)	(R) Capt. F. H. Reynard	8	3	6	152	677	26·66		
d Thirsk (Spital Hill)	Mrs. R. E. Gill	5	1	0	191	700	27·57	217	148
Thirsk (Sowerby)	William Brown, Esq.	5	1	0	110	712	28·02		
d Thirsk (Brynkelhow)	A. B. Hall, Esq.	8	1	0	115	750	29·53	208	150
d Thirsk (The Hall)	J. Bell, Esq.	5	1	10	121	705	27·76	192	132
d Thirsk (Stoneybrough)	T. J. Foggitt, Esq.	5	1	2	122	772	30·40	195	149
■ Felixkirk (Thirlby)	A. J. Walker, Esq.	5	1	0	339	800	31·51		
d Felixkirk (Mount St. John) (+A)	A. J. Walker, Esq.	5	1	0	523	718	28·28	218	156
d Felixkirk (Mount St. John)	A. J. Walker, Esq.	5	1	10	542	761	29·98	207	150
d Felixkirk (Mount St. John)	A. J. Walker, Esq.	5	1	0	541	772	30·39	213	153
■ Felixkirk (Mount St. John)	A. J. Walker, Esq.	5	1	0	541	767	30·21		
d Boltby (Ravensthorpe Manor)	F. E. Walker, Esq.	5	1	7	661	797	31·38	200	151
■ Boltby, East	A. J. Walker, Esq.	5	1	0	460	861	33·90		
■ Boltby (Cliff Head)	No. 2 A. J. Walker, Esq.	5	1	4	772	820	32·29		
■ Boltby (High Paradise)	A. J. Walker, Esq.	5	1	3	1144	1027	40·42		
Bedale (The Hermitage)	C. Clarke, Esq.	5	0	10	465	618	24·33		
Bedale (Thorp Perrow)	Mr. W. Pattison	8	1	6	140	760	29·92	203	143
d Maunby Hall	Major A. Hill-Walker, V.C.	5	1	0	90	717	28·24		
d Bedale (Park House)	Miss M. Greenwood	5	1	1	180	741	29·19	164	141
Thornton-le-Moor (The Chalet)	Rev. A. W. Rainey					677	26·64		
d Borrowby (Leake Vicarage)	Rev. G. W. Kendall	5	1	0	215	728	28·67	179	135
Kepwick Vicarage	Rev. T. E. Parkinson	5	1	0	530	615	24·22		135
Scruton Hall	Rev. A. T. Coore	5	1	0	110	692	27·26		120
■ Swaledale (Gunnarside Lodge)	W. M. Christy, Esq.	5	1	0	950	1459	57·43		
d Northallerton (Brompton)	J. P. Yeoman, Esq.	5	3	0	165	723	28·48	229	153
d Reeth (Arkleside)	T. R. Blumer, Esq.	5	1	0	700	1042	41·01	185	170
d East Harlsey (Harlsey Hall)	Mrs. Constantine	5	1	0	370	652	25·66		132

## DIVISION IX.—YORKSHIRE—(con.).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain. 1923	Days with ·01 in. or more.	Days with ·04 in. or more.		
		Diam.	Height Ground	above Sea Level.					
NORTH RIDING—(con.)		in.	ft.	in.	ft.	mm.	in.		
2.—OUSE—Swale—(con.).									
d Richmond (Marske Hall).....	R. A. Tatton, Esq.....	5	1	0	525	964	37·96	218	167
d Richmond (National School) ..	R. Hornby Esq.....	5	1	0	..	848	33·38	..	..
d Rounton Grange .....	Sir Hugh Bell, Bt. ....	8	1	0	249	670	26·37	230	154
d West Rounton Rectory.....	Rev. G. Bird.....	5	0	11	200	625	24·59	179	140
d Reeth (Arkengarthdale) .....	Samuel Gott, Esq.....	5	1	0	940	1266	49·85	187	169
d Middleton Tyas .....	J. F. B. Baker, Esq. ....	5	0	10	380	718	28·27	..	..
3.—OUSE—Left Bank Tributaries. 153 sq. mi.									
d Stockton-on-Forest(StocktonHall)	Mrs. Lloyd .....	5	1	3	30	625	24·62	..	131
Haxby (Moorlands) .....	E. G. Tew, Esq. ....	5	1	0	59	734	28·91	..	130
d Crayke Rectory .....	Rev. T. Catton .....	5	1	0	200	702	27·63	206	138
4.—OUSE—Derwent. 509 sq. mi.									
Welburn .....	John D. Atkin, Esq.....	5	1	0	300	773	30·45	182	133
d Malton (Broughton Rise) .....	C. C. Laverack, Esq. ....	5	1	0	164	765	30·12	186	136
d Hovingham Hall .....	Sir W. H. A. Worsley, Bt..	5	0	9	119	996	39·23	195	149
d Ampleforth College .....	Rev. H. deNormanville, OSB	8	1	0	350	820	32·30	206	149
d Helmsley (DuncombePk.Gdns.)	Mr. D. Williams .....	5	3	0	176	1009	39·73	175	153
d Pickering (Hungate Hall) .....	Dr. J. L. Kirk .....	5	1	0	90	876	34·48	218	150
d Seamer (Irtton Pump. Station)	H. Richardson, Esq., C.E..	8	1	0	94	751	29·56	221	152
d Scarborough (Osgodby) .....	H. Richardson, Esq., C.E..	8	1	0	166	775	30·51	172	157
d East Ayton (Derwent House) .	A. H. Robinson, Esq. ....	5	1	0	110	768	30·25	211	152
d Scawton Rectory.....	Rev. C. H. Rowntree.....	5	1	0	606	955	37·58	201	165
d Cold Kirby (The School).....	Miss M. H. Wragg .....	5	1	0	763	980	38·59	220	159
d Old Byland (Board Inn) .....	Herbert Nicholson, Esq. ....	5	1	0	722	1040	40·93	..	..
d Kirkby Moorside (Ravenswyke)	Harrison Holt, Esq. ....	5	1	0	220	831	32·73	..	135
d Thornton Dale (High Dalby Ho)	J. A. Coulson, Esq. ....	5	1	0	325	793	31·22	203	149
Kirkby Moorside(Hutton-le-Hole)	F. M. Curtis, Esq. ....	5	1	0	350	850	33·48	..	..
d Hawnby Rectory .....	Rev. W. Hughes .....	5	1	0	497	1073	42·25	..	161
d Bilsdale Priory .....	Rev. J. Powell Parry ....	5	1	0	638	937	36·88	211	159
5.—ESK & G. 278 sq. mi.									
d Scarborough .....	D. Quaife, Esq.....	5	1	0	118	613	24·12	180	129
d Scarborough (Scalby) .....	Mrs. J. W. Rowntree .....	5	0	11	131	846	33·32	178	172
d Scarborough (ScalbySt.Philips)	Rev. W. E. Stewart .....	5	1	0	130	680	26·78	206	146
Goathland (Thwaitefield) .....	L. G. Rowland, Esq. ....	5	0	6	485	796	31·35	..	..
d Glaisdale (The Gables Gardens)	Mr. H. Hope .....	5	0	9	400	1060	41·75	183	163
Slights (The Hall) .....	P. M. Horsfall, Esq. ....	5	1	0	220	909	35·77	..	147
d Danby (The School House)....	J. W. Lynas, Esq.....	5	1	0	500	1056	41·59	187	166
d Danby Lodge .....	Mr. C. Hardy.....	5	3	0	500	1080	42·51	194	169
d Whitby (Park Hall, Aislaby) ..	Rev. J. H. Richardson ...	5	1	0	500	871	34·27	221	170
d Whitby (Mulgrave Castle) .....	Mr. J. Corbett .....	5	1	0	410	806	31·73	228	156
d Guisborough (Lockwood Res.)	W. M. I'Anson, Esq., C.E..	8	1	0	632	926	36·45	210	170
d Saltburn (Skelton Castle).....	Lt.-Col. W. H. A. Wharton	5	0	9	272	787	30·99	248	181
6.—TEES. 373 sq. mi.									
d Ingleby Manor .....	Lord De L'Isle & Dudley..	5	0	11	460	905	35·61	217	165
d Ingleby Greenhow Vicarage ...	Rev. M. A. Horsfall .....	5	1	6	420	904	35·60	195	166
d Kildale Hall .....	Major R. B. Turton .....	5	1	2	600	1024	40·32	256	182
Yarm (Crathorne Gardens)....	Mr. C. Appleton .....	5	1	0	..	643	25·32	202	..
d Croft (Dalton-on-Tees) .....	Mr. W. Wrather .....	8	2	0	170	631	24·86	..	123
Marton-in-Cleveland(Southcroft)	R. Theodore Wilson, Esq...	5	0	11	100	570	22·45	181	138
d Middlesbrough (Albert Park) ..	J. R. F. Readman, Esq. ...	8	1	0	30	593	23·36	190	138
d Baldersdale (Blackton Res.) ...	Thos. S. Calvert, Esq.....	5	1	0	937	1293	50·90	..	..
d Baldersdale (Balderhead).....	Thos. S. Calvert, Esq.....	5	1	0	1360	1483	58·40	..	..
d Baldersdale (Hury Reservoir) ..	Thos. S. Calvert, Esq.....	5	1	0	866	1005	39·56	224	184
d Lunedale (Lunehead) .....	Thos. S. Calvert, Esq.....	5	1	0	1450	1697	66·80	..	..
d Lunedale (Selset).....	Thos. S. Calvert, Esq.....	5	1	0	924	1247	49·10	..	..
d Lunedale (Grassholme Res.) ...	Thos. S. Calvert, Esq.....	5	1	0	936	1176	46·30	224	187

## DIVISION X.—NORTHERN COUNTIES.

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain. 1923	Days with ·01 in. or more.	Days with ·04 in. or more.		
		Diam.	Height Ground	above Sea Level.					
DURHAM. (Area, 1011 sq. mi.)		in.	ft.	in.	mm.	in.			
1.—TEES & C. 396 sq. mi.									
Darlington (North Villa) .....	Dr. C. A. Lower .....	5	1	3	100	694	27·34	206	138
Darlington (Stanhope Road) .....	Rev. A. W. M. Close .....	5	0	8	180	715	28·13	175	151
Darlington (Hummersknott) .....	Mr. John Short .....	5	1	0	200	703	27·66	..	138
Piercebridge (Carlbury Hall) .....	J. H. Pease, Esq. ....	5	1	0	222	687	27·03	..	..
Barnard Castle (Bowes Mus.) .....	S. E. Harrison, Esq. ....	5	1	0	500	890	35·04	216	161
Barnard Castle (County School) .....	C. W. Watson, Esq. ....	5	1	6	540	831	32·71	213	151
Stockton-on-Tees (Hartburn Lo.) .....	C. Nielson, Esq. ....	5	0	8	45	626	24·64	178	140
Stockton-on-Tees (Ropner Park) .....	W. A. Jenkins, Esq. ....	5	1	9	61	610	24·00	186	136
Hurworth Burn (Crookfoot Res.) .....	A. W. Branson, Esq., C.E. ..	10	1	6	293	645	25·38	220	141
West Hartlepool (Water Works) .....	A. W. Branson, Esq., C.E. ..	10	1	0	35	604	23·78	..	116
Hurworth Burn Reservoir .....	A. W. Branson, Esq., C.E. ..	10	1	0	357	674	26·55	217	148
Hartlepool (Hart Reservoir) .....	A. W. Branson, Esq., C.E. ..	10	1	0	172	578	22·77	188	138
Shotton Pumping Station .....	A.B.E. Blackburn, Esq. C.E. ..	8	1	0	422	765	30·10	240	145
Seaham (Dalton Pumping Sta.) .....	A.B.E. Blackburn, Esq. C.E. ..	8	1	0	345	753	29·63	183	137
2.—WEAR. 464 sq. mi.									
Bishop Auckland (N. Bondgate) .....	J. Kilburn, Esq. ....	5	1	0	316	693	27·27	209	139
Stanhope (Parson Byers Qy.) .....	Messrs. Dorman, Long & Co., Ltd. ..	5	6	8	846	821	32·34	170	146
Burnhope (Grass Meres) .....	Durham Co. Water Bd. ....	..	1	3	1850	1645	64·75	..	..
Burnhope (Lodgegill Mine) .....	Durham Co. Water Bd. ....	..	1	3	1950	1805	71·05	..	..
Burnhope Bridge .....	Durham Co. Water Bd. ....	..	1	0	1200	1358	53·48	236	193
Durham Observatory .....	F. Sargent, Esq. ....	8	0	10	336	631	24·85	200	144
Ushaw (St. Cuthbert's College) .....	Rev. J. R. Adamson, Esq. ....	5	0	9	594	663	26·12	175	128
Pittington (Elemore Hall) .....	Miss Baker Baker .....	8	0	6	323	840	33·07	..	..
Weardale W.W. (Tunstall Res.) .....	H. Robinson, Esq., C.E. ....	8	1	2	724	894	35·20	190	164
Weardale W.W. (Waskerley 6) .....	H. Robinson, Esq., C.E. ....	8	4	2	1229	787	30·99	..	..
Weardale W.W. (Waskerley 3) .....	H. Robinson, Esq., C.E. ....	8	4	6	1433	858	33·78	..	..
Weardale W.W. (Waskerley 4) .....	H. Robinson, Esq., C.E. ....	8	4	7	1321	774	30·49	..	..
Weardale W.W. (Waskerley 5) .....	H. Robinson, Esq., C.E. ....	8	4	2	1244	795	31·28	..	..
Weardale W.W. (Waskerley) .....	H. Robinson, Esq., C.E. ....	8	0	11	1179	865	34·05	231	168
Weardale W.W. (Waskerley 2) .....	H. Robinson, Esq., C.E. ....	8	4	5	1367	769	30·29	..	..
Weardale W.W. (Waskerley 1) .....	H. Robinson, Esq., C.E. ....	8	4	4	1317	763	30·05	..	..
Chester-le-Street (Biddick Hall 1) .....	Mr. J. Fletcher .....	5	1	0	150	702	27·63	241	162
Ryeham Pumping Station .....	A.B.E. Blackburn, Esq., C.E. ..	8	1	1	228	668	26·30	217	141
Sunderland (W. Hendon H.) .....	Mrs. W. A. Mounsey .....	5	1	0	130	670	26·37	196	149
Sunderland (Mowbray Park) (+A) .....	H. Renney, Esq., M.D. ....	5	1	0	105	654	25·76	188	138
Sunderland (Cedars End) .....	W. F. Vint, Esq. ....	5	1	0	115	653	25·73	188	134
Sunderland (Southwick Cemet'y) .....	Mr. J. Burdis .....	8	1	0	171	805	31·69	165	149
3.—TYNE, LOWER. 151 sq. mi.									
Weardale W.W. (Smiddy Shaw) .....	H. Robinson, Esq., C.E. ....	8	1	3	1128	936	36·86	238	185
Consett Park Farm .....	J. D. Brown, Esq. ....	5	4	3	641	737	29·02	..	137
Chopwellwood (Armstrong Coll.) .....	T. E. Anderson, Esq. ....	8	1	0	446	721	28·37	220	155
Sunderland (Cleadon Pump Stn.) .....	A.B.E. Blackburn, Esq., C.E. ..	8	1	0	216	622	24·48	187	133
Ryton-on-Tyne (Balgion Ho.) .....	J. W. Smith, Esq., M.D. ....	5	1	3	258	739	29·10	224	160
South Shields (Bent's Park) .....	Dr. W. Nicoll .....	5	1	0	36	652	25·68	211	135
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	1074	42·27	..	..
3.—TYNE, LOWER. 227 sq. mi.									
Corbridge (Howden Dene) .....	T. D. Straker-Smith, Esq. ....	5	0	8	200	704	27·70	210	154
Hexham (Beaufront Castle) .....	The Lady Rayleigh .....	8	1	0	400	785	30·91	..	..
Newcastle (Lit. and Phil. Soc.) .....	H. Richardson, Esq. ....	8	55	0	160	781	30·75	..	..
Newcastle (Leazes Park) .....	W. J. Steele, Esq. ....	5	1	0	255	706	27·80	..	129
Newcastle (Town Moor) .....	D. C. Baldie, Esq. ....	5	2	0	201	763	30·05	210	161
Newcastle (Wellburn, Jesmond) .....	J. H. Holmes, Esq., C.E. ....	5	1	6	163	692	27·26	201	147
Tynemouth (Tyne Pier Works) .....	R. F. Hindmarsh, Esq., C.E. ..	5	1	8	65	790	31·10	210	150
Tynemouth (Coastguard Stat.) .....	The Meteorological Office ..	8	1	0	97	626	24·66	196	151
Whittle Dean (Newcastle W.W.) .....	A. Hardcastle, Esq., C.E. ....	5	0	6	380	639	25·17	232	157
Whittle Dean Filters (N'stle W.W.) .....	A. Hardcastle, Esq., C.E. ....	5	1	1	353	687	27·05	217	164

## DIVISION X.—NORTHERN COUNTIES—(con.).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain.		Days with ·01 in. or more.	Days with ·04 in. or more.	
		Diam.	Height Ground	above Sea Level.	1923				
NORTHUMBERLAND—(con.).		in.	ft.	in.	ft.	mm.	in.		
4.—NORTH TYNE. 433 sq. mi.									
N.Tyne(G.Crag) (N'castle W.W.)	A. Hardcastle, Esq., C.E....	5	1	0	896	711	27·99	..	..
Hallington Vill. (N'castle W.W.)	A. Hardcastle, Esq., C.E....	5	1	0	467	706	27·79	..	..
Hallington Res.(N'castle W.W.)	A. Hardcastle, Esq., C.E....	5	1	0	470	674	26·54	219	161
Hallington(Fawcett) (Newc.WW)	A. Hardcastle, Esq., C.E....	5	1	2	537	685	26·96	..	..
Hallington(Cheviot) (Newc.WW)	A. Hardcastle, Esq., C.E....	5	1	2	576	663	26·12	..	..
Camphill (Newcastle W.W.)	A. Hardcastle, Esq., C.E....	5	1	0	650	704	27·71	..	..
Colt Crag (Newcastle W.W.)	A. Hardcastle, Esq., C.E....	5	1	0	654	679	26·72	222	165
d Falstone Rectory.....	Rev. A. J. Dexter.....	5	1	0	485	1031	40·61	253	194
d Bellingham (High Green Man.)	Capt. Sir C. Morrison-Bell, Bt.	5	1	0	849	898	35·35	258	180
Redewater (Catcleugh).....	A. Hardcastle, Esq., C.E....	5	1	0	819	1193	46·98	237	197
5.—COQUET & C. 840 sq. mi.									
Whittington (Newcastle W.W.)	A. Hardcastle, Esq., C.E....	8	0	9	528	746	29·37	..	..
Burnside (Newcastle W.W.)	A. Hardcastle, Esq., C.E....	5	0	9	419	708	27·87	..	..
Ryal Cottage(Newcastle W.W.)	A. Hardcastle, Esq., C.E....	10	0	9	463	681	26·80	..	..
Morpeth (Ashington) .....	J. Gray, Esq. ....	5	8	0	110	623	24·53	201	144
d Morpeth (Cockle Park) .....	P. Hawdon, Esq. ....	8	1	0	325	699	27·54	210	158
d Font Res. (Tynemouth W. W.)	J. W. McKerrow, Esq. ....	10	1	6	614	825	32·46	251	178
d Rothbury (Brinkburn Priory) ..	Mrs. Hugh Fenwick .....	8	1	0	257	849	33·42	187	164
Rothbury (Embleton Hall).....	J. C. Fenwick, Esq. ....	5	0	9	490	779	30·67	..	..
d Acklington (Broomhill Colliery)	A. M. Morison, Esq. ....	5	7	6	92	602	23·69	..	123
d Rothbury (Cragside) .....	Miss L. Hudson.....	8	1	3	405	781	30·75	214	160
d Alnmouth (Nether Grange).....	Miss E. Pearse.....	5	1	6	40	733	28·84	210	158
d Howick Hall Gardens.....	Mr. J. Wright.....	8	0	10	121	823	32·41	193	150
Beal (Lowlynn).....	H. L. Pattinson, Esq.....	5	1	10	200	674	26·54	..	132
6.—TWEED. 262 sq. mi.									
d Glanton (Glanton Pyke Gdns.)	Mr. J. Henderson .....	8	4	2	521	776	30·56	215	176
d Ilderton (Lilburn Tower) .....	A. B. Collingwood, Esq.....	10	6	0	300	753	29·65	196	148
d Ilderton (Lilburn Tower Grdns.)	Mr. W. Lovett.....	5	1	0	240	847	33·34	196	156
d Kirknewton (Southernknowe) ..	Mr. A. R. Cavers.....	5	1	6	700	1074	42·28	195	158
Wooler (St. Ninians).....	Dr. R. Walker .....	8	0	10	176	878	34·58	..	..
Wooler (Victoria House) .....	Miss E. M. Dodds .....	5	1	0	176	707	27·82	..	143
d Doddington Vicarage .....	Rev. J. G. Shotton .....	8	1	4	140	713	28·08	188	152
Mindrum (Thornington House)	Leonard Briggs, Esq.....	5	..	..	..	726	28·58	..	..
Ford Castle Gardens .....	Mr. J. Jackson .....	5	3	0	220	659	25·95	..	..
7.—INSULAR. 1 sq. mi.									
CUMBERLAND. (Area, 1516 sq. mi.)									
1.—EDEN & SOLWAY. 887 sq. mi.									
Ullswater (Hallsteads) .....	F. Thomasson, Esq.* .....	5	2	0	497	1807	71·13	212	..
Watermillock (Mell Fell House)	Mrs. Spring-Rice .....	5	1	6	970	1544	60·80	205	173
d Penrith (Briar Cottage) .....	H. Lester, Esq. ....	5	1	0	575	1092	42·99	213	172
d Penrith (Sandath) .....	Major G. Varty-Smith .....	5	1	0	570	1111	43·74	217	170
d Penrith (Benson House).....	A. B. Sinclair, Esq., C.E....	5	1	0	480	1239	48·76	226	174
d Penrith (Newton Rigg) .....	John Procter, Esq. ....	8	1	0	559	1155	45·48	233	173
Penrith (Greystoke Castle) ....	J. Smith Hill, Esq. ....	5	1	3	650	1382	54·42	..	..
d Penrith (Ennism) .....	Mrs. Hamlet Riley .....	5	1	0	660	1315	51·79	206	169
Flimby .....	Wilfred Irwin, Esq. ....	5	3	0	50	1377	54·22	..	..
d Uldale (Chapel House Res.) ...	J. Strong, Esq. ....	8	1	0	620	1478	58·19	245	215
d Penrith (Nunwick Hall) .....	Mrs. Heywood Thompson ..	5	1	0	298	983	38·72	213	177
d Mealsgate (Quarry Hill) .....	J. R. Watters, Esq. ....	8	0	9	487	1037	40·81	249	177
d Renwick (Ravenwood).....	W. Salkeld, Esq. ....	5	4	0	750	1197	47·11	238	214
d Wigton (Brookfield) .....	David W. Reed, Esq. ....	5	5	0	124	936	36·86	213	168
d Wigton (Dacre House) .....	J. H. Walker, Esq. ....	5	4	6	134	1017	40·02	227	169
d Wreay Vicarage.....	Rev. Canon A. R. Hall ...	5	2	0	310	905	35·65	221	168
d Geltsdale.....	H. C. Marks, Esq., C.E....	5	1	2	778	1101	43·36	266	192
d Carlisle (Spital Cemetery) .....	J. T. Charlton, Esq. ....	8	1	0	114	933	36·73	231	173
Carlisle (Denton Holme) .....	W. Eggleston, Esq. ....	5	2	0	57	813	31·99	..	..
d Carlisle (Scaleby Hall) .....	Sir R. A. Allison.....	5	1	0	112	911	35·87	216	163
d Penton (Warwickland School)	W. Roden, Esq.....	5	0	6	360	1163	45·80	224	188

\* Per Miss Cordelia Marshall.

## DIVISION X.—NORTHERN COUNTIES.—(con.).

STATIONS.	AUTHORITIES.	Rain Gauge.				Depth of Rain. 1923	Days with ·01 in. or more.	Days with ·04 in. or more.
		Diam.	Height above Ground	above Sea Level.				
CUMBERLAND—(con.).		in.	ft.	in.	ft.	mm.	in.	
2.—DERWENT. 257 sq. mi.								
M Sprinkling Tarn	The Meteorological Office	5	1	6	1985	4318	170·00	.. ..
M Styhead Tarn	The Meteorological Office	5	1	0	1472	4524	178·10	.. ..
M The Sty B.	The Meteorological Office	4	0	6	1077	5925	233·27	.. ..
M The Sty B. .... Seathwaite g.	The Meteorological Office	5	1	6	1070	6281	247·30	.. ..
M The Sty C	The Meteorological Office	4	1	0	1077	6045	238·01	.. ..
M The Sty D	The Meteorological Office	4	1	0	1077	5555	218·70	.. ..
M Borrowdale (Seathwaite)	The Meteorological Office	4	0	6	422	4488	176·68	.. ..
Borrowdale (Seathwaite)	The Meteorological Office	5	1	0	423	3952	155·58	.. ..
Borrowdale (Seathwaite) Field.	Miss C. Marshall	5	1	0	423	4227	166·40	.. ..
M Ullscarf	L. Holme Lewis, Esq., C.E.	6	1	3	2100	3404	134·00	.. ..
M Helvellyn (Birkside)	L. Holme Lewis, Esq., C.E.	6	1	3	1900	1839	72·40?	.. ..
M Wythburn	L. Holme Lewis, Esq., C.E.	6	1	3	610	3142	123·70	.. ..
Armboth Fells (The Pewitts)	L. Holme Lewis, Esq., C.E.	6	1	3	1650	2078	81·80?	.. ..
Helvellyn (Whiteside)	L. Holme Lewis, Esq., C.E.	6	1	3	2100	2474	97·40	.. ..
D Buttermere (Hassness)	S. O. Hanlon, Esq.	5	1	0	350	3772	148·51	261 239
Thirlmere (Dale Head Hall)	L. Holme Lewis, Esq., C.E.	6	1	3	620	2621	103·20	.. ..
D Keswick (Derwent Island)	late John Marshall, Esq.	5	0	7	280	1970	77·57	266 204
D Keswick (Derwent Island)	late John Marshall, Esq.	5	0	6	290	1816	71·50	266 203
D Keswick (The Bank)	Mr. W. E. Campbell	5	1	3	265	1839	72·41	251 206
D Keswick (High Hill)	H. Swinburn, Esq.	5	1	0	254	1790	70·46	258 196
D Keswick (Mirehouse)	Miss Spedding	5	1	6	280	1590	62·61	238 196
D Workington (Stainburn Res.)	H. Bowman Williams, Esq.	5	1	0	180	1193	46·99	219 174
D Cockermouth (Derwent Lodge)	Wilfred Irwin, Esq.	5	4	6	200	1147	45·14	234 179
D Threlkeld (Blencathra Sanat.)	Dr. W. Goodchild	5	1	0	885	2164	85·21	266 231
Camerton Vicarage	Rev. E. C. Bennett	5	1	0	200	1077	42·38	.. ..
D Bassenthwaite Vicarage	Rev. M. H. Banister	5	1	0	350	1500	59·07	263 203
Bassenthwaite (Higham)	G. F. Fisher, Esq.	5	0	9	500	1428	56·22	245 210
3.—WEST COAST STREAMS. 235 sq. mi.								
Ravenglass (The Grove)	Sweton Fraser, Esq.	5	3	0	70	1533	60·35	227 194
D Eskdale Green (Gatehouse)	Mr. J. W. Rainbow	5	1	0	215	2039	80·28	259 213
Beckfoot	Miss C. Marshall	5	1	0	180	2181	85·87	223 ..
d Seascale (Whinthaite)	Dr. R. Hellon	5	1	0	52	1353	53·27	.. 173
D Calder Bdge (Ponsonby Old Par.)	G. L. McKelvie, Esq.	5	1	6	300	1543	60·73	226 206
Braystones	H. H. Watson, Esq.	10	3	6	36	1344	52·90	.. ..
D Egremont (The Grange)	J. Sherwen, Esq.	8	1	0	350	1733	68·25	263 197
M Egremont (Lank Rigg)	J. Sherwen, Esq.	5	1	0	1750	2377	93·60	.. ..
d St. Bees (Bickerley House)	(R) Lt. Col. G. Dixon	8	1	6	60	1419	55·88	237 178
D Whitehaven (Scragill Reservoir)	E. E. Stiven, Esq., C.E.	8	1	0	188	1464	57·65	244 203
D Whitehaven (Irish Street)	Dr. Eldon Pratt	5	1	1	21	1479	58·22	233 188
Workington (Winscales House)	Miss Trench	5	1	6	440	1121	44·13	232 177
4.—DUDDON & C. 50 sq. mi.								
D Silcroft (Old Chappels)	G. H. Holt, Esq.	5	1	0	200	1889	74·35	246 212
5.—SOUTH TYNE. 87 sq. mi.								
WESTMORLAND. (Area, 783 sq. mi.).								
1.—EDEN. 373 sq. mi.								
D Kirkby Stephen (Redman Ho.)	Mrs. T. Mason	5	1	0	574	1403	55·22	218 181
Mosedale (Mosedale Cottage)	L. Holme Lewis, Esq., C.E.	5	1	0	1442	2985	117·50	.. ..
Wet Sleddale (Mirethwaite)	L. Holme Lewis, Esq., C.E.	5	1	0	989	2132	83·94	.. ..
Blea Water	L. Holme Lewis, Esq., C.E.	5	1	0	1477	3101	122·08	.. ..
Mardale (Grove Brae)	L. Holme Lewis, Esq., C.E.	5	1	0	800	2731	107·52	.. ..
Swindale Head	L. Holme Lewis, Esq., C.E.	5	1	0	1029	2118	83·39	.. ..
Grizedale (Ruthwaite Lodge)	W. J. Marshall, Esq.*	8	1	6	1750	3262	128·42	.. ..
Shap (Force Beck)	L. Holme Lewis, Esq., C.E.	5	1	0	1062	1319	51·95	.. ..
Shap (Thornship Gill)	L. Holme Lewis, Esq., C.E.	5	1	0	865	1525	60·04	.. ..
Shap (Tailbert Head)	L. Holme Lewis, Esq., C.E.	5	1	0	1103	1778	69·99	.. ..
Shap (Kirk Bank)	L. Holme Lewis, Esq., C.E.	5	1	0	911	1429	56·24	.. ..

\* Per Miss Cordelia Marshall.

## DIVISION X.—NORTHERN COUNTIES—(con.).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain. 1923	Days with ·01 in. or more.	Days with ·04 in. or more.		
		Diani.	Height Ground	above Sea Level.					
WESTMORLAND—(con.).		in.	ft.	in.	ft.	mm.	in.		
1.—EDEN—(con.).									
D Stainmore (Rampson).....	Capt. T. W. Bracken.....	5	1	9	981	1140	44·87	261	187
Hawes Water (Naddle House)...	L. Holme Lewis, Esq., C.E.	5	1	0	830	1971	77·61	..	..
Hawes Water (Measand).....	L. Holme Lewis, Esq., C.E.	5	1	0	831	2289	90·12	..	..
Measand Beck (Keasgill).....	L. Holme Lewis, Esq., C.E.	5	1	0	1877	2025	79·71	..	..
Patterdale Hall.....	W. J. Marshall, Esq*.....	5	1	3	490	2866	112·85	243	..
Cawdale Beck (Howe Grain)...	L. Holme Lewis, Esq., C.E.	5	1	0	1638	1767	69·56	..	..
Heltondale (Kidmoor).....	L. Holme Lewis, Esq., C.E.	5	1	0	988	1674	65·89	..	..
D Patterdale (Greenside Mine)...	W. H. Borlase, Esq.....	7	1	6	1000	2970	116·94?	246	224
D Appleby (Castle Bank).....	C. R. Rivington, Esq.....	5	1	0	440	1107	43·59	248	186
Ullswater (Sharrow Bay).....	Mr. G. Robinson.....	5	0	7	600	1540	60·64	..	..
D Penrith (Morland).....	F. R. Markham, Esq.....	5	1	0	456	1161	45·73	198	164
Penrith (Brougham Gardens)...	Mr. J. H. Lane.....	5	5	0	470	1086	42·75	209	166
2.—LEVEN. 60 sq. mi.									
D Bowness (Dawstone).....	Miss Irene Synge.....	5	1	2	550	1754	69·05	255	209
D Bowness (Fellside).....	T. D. Lingard, Esq.....	5	0	6	310	2145	84·45	227	210
D Windermere (Hammar Bank)...	Mrs. H. Coutts.....	5	1	0	200	2107	82·96	256	208
D Windermere (Holebird).....	W. G. Groves, Esq.....	5	1	0	483	2264	89·14	289	224
Windermere (Brockhole).....	W. Gaddum, Esq.....	5	1	6	175	2141	84·29	250	212
D Ambleside (Wansfell).....	Miss Wrigley.....	8	1	0	150	2249	88·56	245	212
Ambleside (Skelwith Bridge)...	late Miss Adams*.....	5	1	9	190	3246	127·82	237	..
M Little Langdale (Fell Foot)...	Miss C. Marshall.....	5	2	2	380	3919	154·27	..	..
D Ambleside (White Craggs)....	C. H. Hough, Esq.....	5	1	7	200	2407	94·77	247	218
D Ambleside (Market Square)...	G. A. Johnston, Esq., M.D.	5	1	0	180	2527	99·49	261	220
Ambleside (Lesketh How).....	Miss Benson.....	5	2	6	175	2724	107·25	264	..
Elterwater (Eltermere).....	Miss C. Marshall.....	5	1	0	205	3018	118·81	225	..
Rydal (The Stepping Stones)...	Gordon Wordsworth, Esq..	5	1	0	190	2722	107·16	259	226
D Rydal.....	Miss M. Yates.....	5	1	0	390	2709	106·64	272	231
D Rydal (High Close).....	F. E. T. Jones Balme, Esq....	8	0	9	553	2791	109·88	258	222
D Rydal (The Hall).....	J. Woollard, Esq.....	5	0	6	354	2774	109·23	272	236
D Dungeon Ghyll.....	Miss C. Marshall.....	5	1	0	310	3893	153·25	249	221
M Mickleden.....	Miss C. Marshall.....	5	1	6	490	4678	184·19	..	..
D Grasmere (The Wray).....	Miss G. M. Simpson.....	5	1	0	221	3104	122·22	277	233
3.—KENT. 188 sq. mi.									
Burton (Under Fell).....	J. B. Hoyle, Esq.....	5	0	9	225	1392	54·79	244	194
D Heversham (Plumtree Hall)...	Miss M. C. Watson.....	5	0	8	115	1521	59·88	253	193
d Old Hutton (Middleshaw)....	L. M. & S. Railway Co. ..	8	3	5	369	1479	58·25	..	196
d Killington Reservoir.....	L. M. & S. Railway Co. ..	8	2	8	674	1570	61·81	..	..
D Kendal (Crosthwaite Vicarage)...	Rev. T. Heelis.....	5	1	0	165	1685	66·36	222	196
D Kendal (Vicarage Terrace)....	G. F. Braithwaite, Esq. ..	8	3	3	150	1556	61·25	239	198
D Kendal (Holmcroft).....	R. Rhodes, Esq.....	5	1	3	150	1646	64·80	237	198
Kendal (Greenside).....	Miss C. E. Wilson.....	5	1	0	380	1759	69·25	241	199
Kendal (Ellergreen).....	C. J. Cropper, Esq.....	5	1	6	270	1917	75·47	245	211
D Staveley (Middle Reston)....	W. H. Challiner, Esq.....	5	0	9	440	2044	80·47	258	216
M Long Sleddale (Low House)...	A. Wilson, Esq.....	5	1	0	550	2329	91·70	..	..
Long Sleddale (High House)...	F. L. O'Dwyer, Esq.....	5	1	0	520	2239	88·13	..	..
D Kentmere (Mags Howe).....	Miss G. M. Barker.....	5	1	0	750	2628	103·48	236	213
D Kentmere Head Reservoir....	Messrs. G. Gilkes & Co....	5	1	6	920	3012	118·58	213	203
4.—LUNE. 122 sq. mi.									
Kirkby Lonsdale.....	J. R. Picard, Esq.....	7	0	8	215	1479	58·22	..	..
D Barbon Manor.....	Lord Shuttleworth.....	5	1	3	650	1543	60·74	220	205
D Barbon (The Stores).....	W. Wilkinson, Esq.....	5	1	0	310	1542	60·71	221	195
Ravenstonedale (Railway Station)	J. W. Jackson, Esq†.....	5	1	0	800	3684	145·03	..	..
D Orton.....	Michael Scott, Esq.....	5	1	0	770	1840	72·45	253	199
5.—TEES. 40 sq. mi.									

\* Per Miss Cordelia Marshall.

† Per Lune Board of Conservators.



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

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain.		Days with ·01 in. or more.	Days with ·04 in. or more.	
		Diam.	Height Ground	above Sea Level.	1923				
MONMOUTH. (Area, 534 sq. mi.).		in.	ft.	in.	ft.	mm.	in.		
<b>1.—RHYMNEY. 39 sq. mi.</b>									
d Rumney (Witla Court) .....	Mr. H. H. Merrett .....	5	1	0	177	1059	41·69	186	163
St. Mellons (Druidstone) .....	Mr. G. H. Shoebridge .....	5	1	0	..	1074	42·29	191	159
<b>2.—EBBW. 88 sq. mi.</b>									
Rogerstone (Brynhedydd) ....	Lt.Col. Blethyn T. Rees, C.E.	5	0	8	333	866	34·09	..	..
d Rogerstone (Rhiwderin) .....	L.Forestier-Walker, Esq, MP	5	1	3	259	1001	39·39	204	161
d Abertillery (The Park) .....	S. E. Thomas, Esq.....	5	1	0	700	1471	57·92	232	180
d Tredegar Laboratory .....	W. Morgan, Esq. ....	5	2	0	950	1399	55·08	224	177
d Tredegar (Redesdale) .....	D. W. Davies, Esq.....	5	1	6	963	1543	60·73	227	179
d Tredegar (The Bungalow) .....	S. L. Filer, Esq. ....	5	1	6	1028	1452	57·16	207	177
d Ebbw Vale (Iron Works) .....	J. H. Williams, Esq., V.C.	8	1	0	902	1470	57·89	223	181
d Nant-y-bwch (ShonSheffrey's W)	D. W. Davies, Esq.....	5	1	5	1204	1478	58·18	238	193
<b>3.—USK &amp; C. 290 sq. mi.</b>									
Goldcliff (Porton) .....	Lt.Col. Blethyn T. Rees, C.E.	5	1	3	27	643	25·30	152	123
d Portskewett (Sudbrook) .....	H. V. Woodward, Esq., C.E.	8	0	10	22	818	32·21	..	..
d Newport (Balmoral Road) ....	W. Y. Hobkirk, Esq.....	5	1	0	27	939	36·99	185	152
d Newport W.W. (Friar St. Yard) ..	Newport Corporation .....	5	6	0	32	1015	39·97	197	155
d Newport WW (Ynis-y-fro Res.) ..	Newport Corporation .....	5	1	0	136	1093	43·01	229	162
d Newport WW (Pant-y-reos Res.) ..	Newport Corporation .....	5	1	0	435	1144	45·04	221	153
d Newport W.W. (Llanvaches) ..	Newport Corporation .....	5	0	10	456	1064	41·88	224	157
d Newport W.W. (Nantypidd) ..	Newport Corporation .....	5	1	0	500	1117	43·96	217	151
d Cwmbran (Pant-y-berllan) .....	Dr. W. E. C. Murphy .....	5	1	0	180	1278	50·31	..	155
d Chepstow (Itton Court) .....	Col. E. C. Curre .....	5	1	0	390	968	38·10	193	155
d Caerleon (Cwm-y-Wiwer) .....	Lt.Col. Blethyn T. Rees, C.E.	5	1	0	112	980	38·60	185	142
d Newport W.W. (Newchurch) ..	Newport Corporation .....	5	1	0	550	1144	45·04	217	149
d Usk (Castle Parade House) ....	J. Maitland Watkins, Esq. ...	5	1	0	75	952	37·48	175	132
d Abersychan (Snatchwood Pk.) ..	Godfrey E. Jones, Esq.....	8	1	0	529	1611	63·42	232	178
d Abersychan (Glansychan) .....	G. W. James, Esq. ....	5	1	0	699	1610	63·37	260	181
d Goytre (Goytre Hall) .....	Mrs. Lionel Whitehead .....	9	1	2	300	1273	50·13	203	154
d Blaenavon (Estate Office) .....	E. J. John, Esq. ....	8	4	0	1150	1365	53·72	199	163
d Abergavenny (Ty Clyd) .....	F. D. Llewelyn, Esq. ....	5	1	0	290	1194	47·02	207	143
d Abergavenny (Mansel Place) ..	C. Webb, Esq.....	8	7	2	217	1134	44·64	182	136
d Abergavenny (Larchfield) .....	Dr. N. R. Phillips .....	5	1	0	240	1015	39·98	186	136
d Abergavenny (The Chain) .....	W. Baker-Gabb, Esq. ....	5	1	0	310	1027	40·43	199	146
d Grwyne Fawr (Coed Dias) ....	W. Baker-Gabb, Esq. ....	5	1	0	900	1175	46·26	241	176
<b>4.—WYE. 117 sq. mi.</b>									
Chepstow (The Cedars) .....	J. E. G. Lawrence, Esq....	5	2	0	150	911	35·85	168	144
d Monmouth (Pentwyn) .....	Rev. Canon J. T. Harding .....	9	1	0	191	760	29·93	177	136
d Llanvihangel Crucorney Depôt.	J. F. Jupp, Esq., C.E. ....	5	1	0	501	983	38·69	..	145
GLAMORGAN. (Area, 808 sq. mi.)									
<b>1.—LOUGHOR. 55 sq. mi.</b>									
d Gorseinon (Penllergaer) .....	Sir J. T. D. Llewelyn, Bt... 5	3	0	240	1451	57·13	234	207	
d Felindre (Blaenant Dhu) .....	G. R. Collinson, Esq., C.E.. 5	1	3	348	1728	68·03	258	218	
d Felindre (Lower Lliw Res.) .....	G. R. Collinson, Esq., C.E.. 8	1	3	427	1492	58·74	255	207	
d Felindre (Upper Lliw Res.) ..	G. R. Collinson, Esq., C.E.. 8	1	3	600	1827	71·91	263	213	
<b>2.—GOWER PENINSULA. 62 sq. mi.</b>									
d Penmaen (Cefn Mor) .....	Mrs. Bostock .....	5	1	5	300	1157	45·53	207	171
d Sketty (Rhydyrhelyg) .....	E. H. Perkins, Esq. ....	5	1	0	124	1350	53·15	248	190
<b>3.—TAFE. 47 sq. mi.</b>									
d Swansea (Victoria Park) ..	(+A) Mr. D. Bliss .....	8	1	0	27	1283	50·50	244	188
d Morriston (Pentrepeth House) ..	Dr. M. W. Williams .....	5	1	0	236	1618	63·69	249	195
d Clydach (Wernfadog) .....	(R) Mrs. Player .....	8	4	2	..	1366	53·79?	219	184
d Ystalyfera (Wern House) .....	J. Williams, Esq. ....	5	1	6	240	1977	77·84	242	212
<b>4.—NEATH. 82 sq. mi.</b>									
d Briton Ferry (Cefn Court) ....	H. A. Clarke, Esq., C.E.... 5	1	0	503	1443	56·82	212	189	
d Neath (Gnoll Reservoir) .....	H. A. Clarke, Esq., C.E.... 5	1	0	204	1441	56·73	231	189	
d Neath (Maesmelyn) .....	Major E. Ll. Green .....	5	1	6	115	1215	47·83	219	181
d Neath (Glynfeln) .....	T. Gibbins, Esq. ....	5	1	4	180	1697	66·79	..	195
d Rhondda W.W. (Llyn Fawr Res.) ..	Mr. J. B. Hughes .....	8	1	0	1220	2614	102·90	252	206
d Pontardawe (Plas Cilybebyll) ..	J. H. B. Lloyd, Esq. .... 5	4	0	500	2016	79·36	..	..	

## DIVISION XI.—MONMOUTH, WALES, AND THE ISLANDS—(con.).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain.		Days with ·01 in. or more.	Days with ·04 in. or more.	
		Diam.	Height Ground	above Sea Level.	1923				
GLAMORGAN—(con.).		in.	ft.	in.	ft.	mm.	in.		
5.—OGMORE & C. 350 sq. mi.									
Cowbridge (Fonmon Castle) ... Mrs. Oliver Jones		8	1	2	130	932	36·69	..	148
d Barry W.W. (Biglis) ... T. E. Franklin, Esq., C.E.		5	1	0	20	961	37·82	217	159
Barry W.W. (Merthyr Dyfan R.) T. E. Franklin, Esq., C.E.		5	1	0	300	1032	40·63	..	..
Barry W.W. (Pencoedtre Res.) T. E. Franklin, Esq., C.E.		5	1	0	200	818	32·19	..	..
Barry W.W. (Dinas Powis Res.) T. E. Franklin, Esq., C.E.		5	1	0	165	1152	45·37	..	..
Lower Penarth ... E. I. Evans, Esq., C.E.		5	1	0	67	883	34·75	181	149
Penarth ... E. I. Evans, Esq., C.E.		5	5	0	160	1030	40·55	194	164
d Cardiff (Cogan Pumping Statn.) C. H. Priestley, Esq., C.E.		5	1	0	121	952	37·49?	199	163
d Cardiff (Ely Pumping Station) C. H. Priestley, Esq., C.E.		5	1	0	53	1185	46·65	269	169
d Fairwater (Glan Ely Hosp.) ... Medical Superintendent		8	0	11	122	1138	44·81	214	163
d Cardiff (St. Fagans Castle) ... Capt. H. A. Pettigrew		5	0	11	100	1294	50·93	223	180
d Cowbridge (Ash Hall) ... E. Tudor Owen, Esq.		8	3	6	315	1273	50·11	225	177
Merthyr Mawr ... Lt.-Col. J. D. Nicholl		5	1	0	75	1307	51·45	243	205
d Bridgend (Highmead) ... H. J. Randall, Esq.		5	1	0	80	1359	53·52	226	185
d Port Talbot (Twyn-yr-hydd) ... E. N. David, Esq.		5	1	3	180	1123	44·22	228	168
d Port Talbot (Groeswen Ganol) A. Bishop, Esq.		8	1	0	51	1180	46·47	249	192
Pontycymer (Garw Sec. Sch.) J. J. Morgan, Esq.		5	1	0	600	1695	66·75	..	165
d Glyncofrwg Colliery ... Mr. C. Stephens		5	4	6	725	2565	100·97	210	197
6.—TAFF. 157 sq. mi.									
d Cardiff (Trade Street Dépôt) ... C. H. Priestley, Esq., C.E.		5	1	0	45	1036	40·80	206	157
d Llandaff (West Hill) ... J. E. Gladstone, Esq.		5	1	0	110	1165	45·86	233	167
d Rhubina Reservoir ... C. H. Priestley, Esq., C.E.		5	1	0	336	1354	53·31	229	174
d Pontypridd (Lan Wood Res.) ... T. W. Coates, Esq., C.E.		5	1	6	300	1553	61·13	227	164
d Ystradyfodwg (Tyntyla Hos.) ... J. D. Jenkins, Esq., M.D.		5	1	0	590	1378	54·24	196	154
d Treharris Service Reservoir ... A. J. Marshall, Esq., C.E.		5	1	0	765	1504	59·23	217	173
d Mountain Ash (Maesydderwen) Lt.-Col. M. Morgan		5	1	0	483	1506	59·29	214	169
d Mountain Ash (Darranlas Res.) W. G. Thomas, Esq., C.E.		5	0	11	540	1671	65·78	231	172
d Treherbert (Tyn-y-waun) ... O. Thomas, Esq.		5	1	0	801	2664	104·87	268	205
d Cwmaman Collieries ... R. R. Davies, Esq.		5	2	2	930	2459	96·83	216	195
d Rhondda (Pont Lluest Wen R.) 3 T. W. Coates, Esq., C.E.		5	1	6	1100	2297	90·45	240	204
d Rhondda (Pont Lluest Wen R.) 2 T. W. Coates, Esq., C.E.		5	1	6	1225	2203	86·74	240	207
d Rhondda (Pont Lluest Wen R.) 1 T. W. Coates, Esq., C.E.		5	1	6	1280	2498	98·34	240	208
d Merthyr Tydfil (Penbryn Filters) A. J. Marshall, Esq., C.E.		5	1	0	936	1566	61·64	250	192
d Dowlais (Gwernllwyn) ... R. C. Harrison, Esq.		5	1	6	1071	1318	51·89	222	174
7.—RHYMNEY. 55 sq. mi.									
d Cardiff (Roath Park) ... A. A. Pettigrew, Esq.		5	1	0	49	1143	45·02	225	169
d Cardiff (Penylan) ... A. E. Brain, Esq.		5	1	0	203	1087	42·79	202	161
d Cardiff (Heath Filters) ... C. H. Priestley, Esq., C.E.		5	1	0	132	1161	45·70	208	171
d Llanishen Reservoir ... C. H. Priestley, Esq., C.E.		5	1	0	155	1109	43·67	216	160
d Lisvane Reservoir ... C. H. Priestley, Esq., C.E.		5	1	0	150	1032	40·62	217	159
d Caerphilly (Secondary School) W. G. Rees, Esq.		5	0	6	300	1450	57·10	..	..
d Rhymney Bridge Reservoir ... E. Watkins Edwards, Esq., C.E.		8	1	0	1098	1692	66·62	237	212
CARMARTHEN. (Area, 918 sq. mi.)									
1.—TEIFI. 87 sq. mi.									
2.—TOWY & C. 715 sq. mi.									
d Carmarthen (The Friary) ... Dr. L. M. Bowen-Jones		5	1	5	62	1342	52·82	275	200
d Llandilo (Golden Grove Gdns.) Mr. W. Robinson		6	1	6	125	1616	63·61	215	204
d Llandilo (Dynevor Castle) ... Lord Dynevor		8	1	0	202	1466	57·72	262	212
Llandilo (Bryneithen) ... F. L. Puxley, Esq.		5	1	0	300	1528	60·14	249	210
d Llyn-y-fan Fach (Waen Sychlwch) R. C. Jones, Esq.		5	1	0	1647	2321	91·38	255	218
d Llyn-y-fan Fach (Llethr-y-Llyn) R. C. Jones, Esq.		5	1	0	1665	2108	82·99	255	218
d Llyn-y-fan Fach (Afon Sychlwch) R. C. Jones, Esq.		5	1	0	1371	2455	96·64	253	219
d Llyn-y-fan Fach (Nant Côch) ... R. C. Jones, Esq.		5	1	0	1172	2157	84·92	250	210
d Llandeusan (Pontcrynfe) ... J. Thomas, Esq.		5	1	0	323	1641	64·62	243	189
Llandovery (Nantyrhogfaen) ... D. T. M. Jones, Esq.		5	1	0	249	1438	56·62	264	214
d Llanwrda (Dolaucothy) ... Lady Hills-Johnes		5	2	6	498	1817	71·53	297	237

## DIVISION XI.—MONMOUTH, WALES, AND THE ISLANDS—(con.).

STATIONS.	AUTHORITIES.	Rain Gauge.				Depth of Rain.		Days with ·01 in. or more.	Days with ·04 in. or more.
		Diam.	Height Ground	above Sea Level.		1923			
CARMARTHEN—(con.).		in.	ft.	in.	ft.	mm.	in.		
3.—LOUGHOR & C. 104 sq. mi.									
d Llanelly (Old Market Yard).....	G. Watkeys, Esq., C.E....	5	12	0	35	1468	57·79	247	199
d Llanelly (Filter Beds) .....	G. Watkeys, Esq., C.E....	5	1	0	237	1355	53·34	240	198
d Llanelly (Cwmlliedi W.W.) ....	G. Watkeys, Esq., C.E....	5	2	3	240	1508	59·38	268	202
d Llanelly (Upper Lliedi Res.)....	G. Watkeys, Esq., C.E....	5	3	0	290	1661	65·39	254	210
4.—TAWE. 7 sq. mi.									
5.—USK. 5 sq. mi.									
6.—WYE.									
PEMBROKE. (Area, 617 sq. mi.).									
1.—TEIFI. 37 sq. mi.									
d Boncath (Ffynone).....	Col. Spence-Colby .....	5	1	0	300	1428	56·22	206	191
2.—NEVERN & C. 91 sq. mi.									
d Boncath (Blaenfos School)....	W. T. Williams, Esq.....	5	1	0	500	1362	53·63	..	..
d Moylgrove (Council School) ....	D. J. Morse, Esq. ....	5	4	10	192	909	35·77?	..	..
3.—WEST COAST STREAMS. 82 sq. mi.									
St. Davids .....	P. O. Bulbrook, Esq.....	5	1	0	124	902	35·51	194	140
4.—GLEDDAU & C. 407 sq. mi.									
Pembroke (Stackpole Court) ..	Mr. C. McInroy .....	6	1	6	60	1147	45·14	229	177
d St. Ann's Head .....	The Meteorological Office.	8	0	10	150	1075	42·34	215	167
d Pembroke Dock (County School) J. H. Garnett, Esq.....		5	1	0	85	1173	46·17	238	164
d Pembroke Dock (Admiralty R.) W. T. Coldicott, Esq.....		8	1	0	90	1084	42·68	196	173
d Saundersfoot (Hean Castle)....	Lord Merthyr.....	5	1	0	206	1117	43·96	188	162
d Crunwre (N.P. School).....	H. J. Parr, Esq.....	5	1	0	410	1539	60·60	250	203
d Haverfordwest (Picton Castle) .	Sir C. E. G. Philipps, Bt... 5	0	10	138	1377	54·21	249	..	..
d Haverfordwest (Portfield) ....	J. W. Phillips, Esq. ....	5	1	0	250	1338	52·66	238	188
d Haverfordwest (Grammar Sch.) .	J. W. Phillips, Esq. ....	5	1	0	95	1470	57·86	220	195
d Penffordd Council School ....	T. H. Davies, Esq.....	5	1	1	349	1388	54·63	..	..
d Puncteston (School).....	E. T. Davies, Esq. ....	3	0	3	500	1405	55·30	..	..
d Mynachlogddu Council School .	W. H. Parry, Esq.....	5	1	3	620	1819	71·61	..	184
d Fishguard (Langton, Dwrbach) J. C. Yorke, Esq. ....		5	1	0	320	1331	52·42	239	185
CARDIGAN. (Area, 688 sq. mi.).									
1.—DOVEY. 20 sq. mi.									
2.—YSTWYTH & C. 347 sq. mi.									
d Yspytty-Ystwyth (Hafod).....	T. J. Waddingham, Esq. . 5	1	0	580	2004	78·88	276	239	
d Devil's Bridge.....	Idwal Jones, Esq.....	5	1	0	825	2156	84·89	262	232
d Capel Bangor (Penllwyn).....	W. E. Whitehouse, Esq.... 5	1	0	145	1320	51·97	..	..	
d Ponterwyd .....	W. E. Whitehouse, Esq.... 5	1	0	767	2671	105·14	248	238	
d Aberystwyth (Castle Grounds) .	Dr. A. Thomas.....	8	2	6	59	1028	40·47	241	183
d Aberystwyth (North Parade) ..	Dr. A. Thomas .....	8	2	6	18	1188	46·77	241	192
d Aberystwyth (Gogerddan) ....	Mr. F. J. Reeves.....	5	1	1	83	1596	62·82	..	..
d Ynys-las (Sandling) .....	Wyndham Deedes, Esq.... 5	1	6	15	1042	41·03	219	178	
3.—TEIFI. 260 sq. mi.									
d Cardigan (County School).....	Dr. D. Rees.....	5	1	6	72	1177	46·35	221	173
d Lampeter (Falcondale).....	Mr. W. Taylor .....	5	1	0	498	1556	61·27	246	218
d Yspytty-Ystwyth (Dolgroes)...	Mr. R. Roberts.....	5	1	0	780	1905	75·00	..	..
4.—TOWY. 46 sq. mi.									
d Abergwesyn (Nantneuadd) ....	Mr. W. Roberts .....	5	1	0	1290	2038	80·25	210	202
d Tregaron (Maes-y-bettws) ....	The Meteorological Office. 5	1	0	910	2108	83·00	..	..	
5.—WYE. 15 sq. mi.									
d Birmingham W.W. (Llyn Gynon) F. W. Macaulay, Esq., C.E. 5		1	0	1500	2315	91·16	..	..	
d Birmingham W.W. (Bwlchyrhendre) F. W. Macaulay, Esq., C.E. 5		1	0	1585	2257	88·84	..	..	
d Birmingham W.W. (Claerddu) ..	F. W. Macaulay, Esq., C.E. 5	1	0	1470	2568	101·11	..	..	
d Birmingham W.W. (Gwngu) ....	F. W. Macaulay, Esq., C.E. 5	1	0	1490	2133	83·96	..	..	
d Birmingham W.W. (Abergwngu) F. W. Macaulay, Esq., C.E. 5		1	0	1150	2442	96·15	..	221	
d Plynlimon .....	The Meteorological Office. 5	1	0	1630	2042	80·40?	..	..	

## DIVISION XI.—MONMOUTH, WALES, AND THE ISLANDS—(con.).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain. 1923	Days with ·01 in. or more.	Days with ·04 in. or more.		
		Diam.	Height Ground	above Sea Level.					
BRECON. (Area, 733 sq. mi.)		in.	ft.	in.	ft.	mm.	in.		
<b>1.—TOWY. 17 sq. mi.</b>									
<b>2.—TAWE. 41 sq. mi.</b>									
Ystradgynlais (Ynyscedwyn Ho.)	Capt. H. A. B. Griffith	5	0	9	223	1720	67·70	241	197
Swansea W.W. (Nantyrwydd) No 1	G. R. Collinson, Esq., C.E.	5	1	0	916	2295	90·37	257	213
Swansea W.W. (Nantyrwydd) No 2	G. R. Collinson, Esq., C.E.	5	0	10	909	2425	95·49	257	215
<b>3.—NEATH. 43 sq. mi.</b>									
Glyn Neath (P. Neath Vaughan)	Messrs. Curtis & Harvey, Ltd.	5	1	5	297	1799	70·84	246	193
Ystradfellte Reservoir	D. M. Davies, Esq., C.E.	5	1	0	1147	2295	90·35	265	221
<b>4.—TAFF. 48 sq. mi.</b>									
Aberdare (Nanthir Reservoir)	O. Williams, Esq., C.E.	5	1	0	860	1786	70·33	258	199
Penderyn Reservoir	W. G. Thomas, Esq., C.E.	5	1	0	717	1623	63·91	257	206
Taff Fechan (Pontsticill) No. 12	T. F. Harvey, Esq., C.E.	5	1	0	1031	1542	60·70	245	197
Taff Fechan (Pontsticill West) No. 14	T. F. Harvey, Esq., C.E.	5	1	0	1254	1544	60·80*	..	..
Cardiff W.W. (Llwynon Res.)	C. H. Priestley, Esq., C.E.	5	1	0	854	1416	55·76*	240	186
Cardiff W.W. (Troedryhiw)	C. H. Priestley, Esq., C.E.	5	1	0	860	1779	70·02	..	..
Cardiff W.W. (Pont-ar-daf)	C. H. Priestley, Esq., C.E.	5	1	0	850	1623	63·91	250	198
Cardiff W.W. (Garw-nant)	C. H. Priestley, Esq., C.E.	5	1	0	1100	1899	74·78	..	..
Cardiff W.W. (Nant-Gwineu)	C. H. Priestley, Esq., C.E.	5	1	0	1275	1633	64·27*	..	..
Cardiff W.W. (Nant-y-gou-garn)	C. H. Priestley, Esq., C.E.	5	1	0	..	1733	68·23	..	..
Taff Fechan (Pentwyn Res.)	T. F. Harvey, Esq., C.E.	5	1	0	1120	1875	73·84	277	210
Cardiff W.W. (Nant Goch)	C. H. Priestley, Esq., C.E.	5	1	0	..	1573	61·92	..	..
Cardiff W.W. (Nant Ddu)	C. H. Priestley, Esq., C.E.	5	1	0	1560	2071	81·55	..	..
Cardiff W.W. (Storey Arms) No. 4	C. H. Priestley, Esq., C.E.	5	1	0	1430	1616	63·61*	..	..
Cardiff W.W. (Tyle Brith) No. 1	C. H. Priestley, Esq., C.E.	5	1	0	2350	2106	82·90	..	..
Cardiff W.W. (Cantref R.) No. 2	C. H. Priestley, Esq., C.E.	5	1	0	1120	1928	75·89	250	213
Torpantau Station	Newport Corporation	5	1	0	1316	1374	54·09	212	176
Cardiff W.W. (Beacons Res.) No. 6	C. H. Priestley, Esq., C.E.	5	1	0	1340	2331	91·77	264	223
Cardiff W.W. (Nant Penig) No. 3	C. H. Priestley, Esq., C.E.	5	1	0	2000	2617	103·05	..	..
Taff Fechan (Neuadd Rs.) No. 1	T. F. Harvey, Esq., C.E.	5	1	0	1462	1977	77·83	267	214
Taff Fechan (Neuadd Rs.) No. 4	T. F. Harvey, Esq., C.E.	5	1	0	1487	2243	88·30	267	225
Taff Fechan (Neuadd Rs.) No. 11	T. F. Harvey, Esq., C.E.	5	1	0	1524	1668	65·66*	267	198
Taff Fechan (Neuadd Rs.) No. 2	T. F. Harvey, Esq., C.E.	5	1	0	1993	1689	66·50	..	..
Taff Fechan (Neuadd Rs.) No. 5	T. F. Harvey, Esq., C.E.	5	1	0	1515	2323	91·46	..	..
Taff Fechan (Neuadd Rs.) No. 10	T. F. Harvey, Esq., C.E.	5	1	0	1700	1768	69·62*	..	..
Taff Fechan (Neuadd Rs.) No. 3	T. F. Harvey, Esq., C.E.	5	1	0	1843	1839	72·40*	..	..
Taff Fechan (Neuadd Rs.) No. 7	T. F. Harvey, Esq., C.E.	5	1	0	2017	2041	80·37	..	..
Taff Fechan (Neuadd Rs.) No. 8	T. F. Harvey, Esq., C.E.	5	1	3	1723	2155	84·85	..	..
Taff Fechan (Neuadd Rs.) No. 9	T. F. Harvey, Esq., C.E.	5	1	0	1997	1307	51·47*	..	..
Taff Fechan (Neuadd Rs.) No. 6	T. F. Harvey, Esq., C.E.	5	1	3	2099	2372	93·39	..	..
<b>5.—RHYMNEY. 2 sq. mi.</b>									
<b>6.—EBBW. 7 sq. mi.</b>									
Ebbw Vale W.W. (Llangunider) 1	P. I. Davies, Esq., C.E.	5	1	0	1413	1351	53·17	228	182
Ebbw V.W.W. (Llangunider) W3	P. I. Davies, Esq., C.E.	5	1	0	1468	1689	66·50	227	190
Ebbw V.W.W. (Llang'nd'r) NW2	P. I. Davies, Esq., C.E.	5	1	0	1471	1611	63·42	226	185
Ebbw Vale W.W. (Carno, S.)	P. I. Davies, Esq., C.E.	5	1	0	1236	1665	65·57	217	191
Ebbw Vale W.W. (Carno, E.)	P. I. Davies, Esq., C.E.	5	1	0	1391	1597	62·89	217	187
Ebbw Vale W.W. (Carno, W.)	P. I. Davies, Esq., C.E.	5	1	0	1412	1690	66·52	216	189
Ebbw Vale W.W. (Carno, N.)	P. I. Davies, Esq., C.E.	5	1	0	1533	1555	61·23	215	186
<b>7.—USK. 299 sq. mi.</b>									
Torpantau (Darenfawr)	Newport Corporation	5	1	0	1172	1984	78·11	..	..
Torpantau (Ynysposte)	Newport Corporation	5	1	0	741	1833	72·16	..	..
Torpantau (Blaen-caer-fanell)	Newport Corporation	5	1	0	1584	2002	78·83	..	..
Talybont (Pentir-rhiw)	Newport Corporation	5	1	0	587	1489	58·63	219	179
Talybont (Pwll Ifor)	Newport Corporation	5	1	0	1224	1801	70·92	..	..
Crickhowell Rectory	Rev. G. Roberts	5	1	0	320	960	37·81	..	142

\*Gauge over-exposed on Moor.

## DIVISION XI.—MONMOUTH, WALES, AND THE ISLANDS—(con.).

STATIONS.	AUTHORITIES.	Rain Gauge.				Depth of Rain.		Days with ·01 in. or more.	Days with ·04 in. or more.
		Diam.	Height Ground	above Sea Level.		1923			
BRECON—(con.).		in.	ft.	in.	ft.	mm.	in.		
7.—USK—(con.).									
D Crickhowell (Gwernvale).....	E. Pirie Gordon, Esq.....	5	1	0	393	1040	40·94	230	155
M Swansea W.W.(Cray Rs.) No.2.G. R. Collinson, Esq., C.E..		5	1	0	1020	2473	97·35	..	..
D Swansea W. W.(CrayRs.) No.1(+A) G.R.Collinson, Esq., C.E.		5	1	0	1044	2039	80·29	262	218
M Cray Station.....	Mr. J. Jones.....	5	1	0	930	1880	74·00	..	..
M Talybont (Cwy Parc).....	Col. H. R. Jones-Williams..	5	1	6	480	1293	50·90	..	..
M Llanfrynach (Ty-mawr).....	Miss D. de Winton.....	5	1	0	450	1226	48·27	218	146
M Crickhowell (Cwmdu Rectory).....	Rev. W. A. Davies.....	5	1	0	430	940	37·00	..	..
M Crickhowell (Tal-y-maes).....	The Meteorological Office..	5	1	0	1250	1353	53·25	..	..
d Trecastle (Blaenau-hydfer).....	The Meteorological Office..	5	1	0	1070	2148	84·55	..	182
d Brecon (Fairbull School).....	I. L. Price, Esq.....	5	1	0	660	1405	55·31	230	190
Brecon (Ffrwdgrech).....	Capt. J. D. D. Evans.....	8	1	1	570	1352	53·22	210	168
D Black Mountains(Blaen-y-cwm) J. F. Jupp, Esq., C.E....		5	1	0	1423	1549	60·98	244	201
D Black Mountains(Blaen-y-cwm) J. F. Jupp, Esq., C.E....		5	1	0	1289	1423	56·03	238	192
Black Mountains (Waun Fach) J. F. Jupp, Esq., C.E....		5	1	0	2650	1363	53·65	..	..
Black Mts. (Cwm Grigys Uchaf) J. F. Jupp, Esq., C.E....		5	1	0	1980	1408	55·44	..	..
D Black M.(DamSiteGrwyneFawr) J. F. Jupp, Esq., C.E....		5	1	0	1620	1582	62·29	244	203
D Black Mountains (AberClyd) (+A) J. F. Jupp, Esq., C.E....		5	1	0	1880	1368	53·86	244	202
Black Mts. (Pen-y-Manllwyn) J. F. Jupp, Esq., C.E....		5	1	0	2512	1305	51·38	..	..
Black Mts. (Taren-yr-Esgob) J. F. Jupp, Esq., C.E....		5	1	0	2039	1201	47·29	..	..
Black Mts. (Twyn Tal-y-Cefn) J. F. Jupp, Esq., C.E....		5	1	0	2130	1178	46·38	..	..
Black Mts.(BlaenGrwyneFawr) J. F. Jupp, Esq., C.E....		5	1	0	2150	1243	48·92	..	..
M Upper Chapel (Tymawr).....	Mrs. Probert.....	5	1	0	945	1412	55·60	..	..
8.—WYE. 271 sq. mi.									
D Cathedine Rectory.....	The Meteorological Office..	5	1	6	650	762	29·99	182	129
d Talgarth (Dan-y-garth).....	F. Morgan, Esq.....	5	4	0	404	857	33·72	..	127
D Talgarth (Pontiwal Sanatorium)Dr. H. E. Watson.....		5	1	0	500	886	34·88	213	161
D Llanwrtyd Wells (Brynonen).....	Rhys D. Jones, Esq.....	5	1	0	702	1729	68·09	264	205
D Builth Wells (Tyn-y-berllan).....	Dr. W. Black Jones.....	5	1	0	425	1018	40·07	210	166
M Abergwesyn (Trallwn).....	The Meteorological Office..	5	1	0	1000	2276	89·60	..	..
M Newbridge (Pengraig).....	The Meteorological Office..	5	1	0	960	1621	63·80	..	..
D Newbridge (Llysdinam).....	Col. C. Venables Llewelyn..	5	1	3	646	1152	45·37	237	182
M Birm'gh'm W.W.(Cors-yr-hwch)F. W. Macaulay, Esq., C.E.		5	1	0	1775	2957	116·40	..	..
M Birm'gh'm W.W.(EsgairCeiliog)F. W. Macaulay, Esq., C.E.		5	1	0	1560	2456	96·70	..	..
M Birm'gh'm W.W.(Llyn-Carw) F. W. Macaulay, Esq., C.E.		5	1	0	1775	2655	104·53	..	..
M Birm'gh'm W.W.(Nant-y-car) F. W. Macaulay, Esq., C.E.		5	1	0	1545	2571	101·20	..	..
M Birm'gh'm W.W.(Tyn-y-pant) F.W. Macaulay, Esq., C.E.		5	1	0	1320	1770	69·68	..	..
M Birm'gh'm W.W.(EsgairGarthen)F. W. Macaulay, Esq., C.E.		5	1	0	1590	2576	101·41	..	..
D Birm'gh'm W.W.(Elan Village) F. W. Macaulay, Esq., C.E.		5	1	0	700	1730	68·11	247	202
RADNOR. (Area, 474 sq. mi.)									
1.—WYE. 424 sq. mi.									
D Glasbury-on-Wye(HamptonSc.) Rev. D. C. Lloyd.....		5	1	0	274	797	31·38	185	139
d Builth (Cefndyrys).....	Capt. E. A. Thomas.....	5	0	10	740	1265	49·81	..	185
Builth Rd. (St. John's Vicarage)Rev. J. L. Bryans.....		5	1	0	550	1178	46·37	228	173
New Radnor (Harpton Crt. Gns)Mr. C. W. Bowen.....		5	0	9	700	1199	47·20	228	..
New Radnor.....	John Langston, Esq.....	5	1	4	720	1180	46·47	227	..
D Llandrindod Wells (Kimberley)W.B. deWinton, Esq.C.I.E.		5	1	0	699	1027	40·44	238	172
D Presteign (St. Davids).....	Dr. N. Y. Lower.....	5	1	0	500	919	36·19	224	151
D Presteign(Norton Manor Gdns.) Mr. J. Tipton.....		5	0	9	600	948	37·33	172	157
D Birmingham WW (Tyrmynydd)F. W. Macaulay, Esq., C.E.		5	1	0	832	1811	71·32	253	205
D Birmingham W W (Nantgwillt)F. W. Macaulay, Esq., C.E.		5	1	0	845	2015	79·31	256	212
M Birmingham W. W. (Dwfnant) F. W. Macaulay, Esq., C.E.		5	1	0	1050	2184	85·97	..	..
M Birm'gham WW(EsgairGader) 2F. W. Macaulay, Esq., C.E.		5	1	0	1500	2327	91·60	..	..
M Birmingham W.W. (Tynlidiart)F. W. Macaulay, Esq., C.E.		5	1	0	1006	2123	83·60	..	..
d Birmingham W.W. (Claerwen) F. W. Macaulay, Esq., C.E.		5	1	0	1250	2460	96·85	..	261
D Birmingham W.W. (Tynant) ..F.W. Macaulay, Esq., C.E.		5	1	0	1020	2131	83·91	247	208
Rhayader (East Street).....	F.W. Macaulay, Esq., C.E.	5	1	0	700	1513	59·56	..	..
D Rhayader (Penralley).....	E. D. Prothero, Esq.....	5	1	0	758	1499	59·05	259	195
M Bir'gham WW(Cerrigllwydion) F. W. Macaulay, Esq., C.E.		5	1	0	1710	2507	98·69	..	..
M Birm'gham WW (Pen-y-gareg) 1F. W. Macaulay, Esq., C.E.		5	1	0	1500	1745	68·70	..	..
M Birm'gham WW (Pen-y-gareg) 2F. W. Macaulay, Esq., C.E.		5	1	0	1540	1893	74·53	..	..

## DIVISION XI.—MONMOUTH, WALES, AND THE ISLANDS—(con.).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain. 1923	Days with ·01 in. or more.	Days with ·04 in. or more.		
		Diam.	Height Ground	above Sea Level.					
RADNOR—(con.).		in.	ft.	in.	ft.	mm.	in.		
1.—WYE—(con.).									
M Birmingham W.W. (Calettwr)	F. W. Macaulay, Esq., C.E.	5	1	0	1490	2779	109·40	..	..
M Birmingham W.W. (Figin) No. 2F.	W. Macaulay, Esq., C.E.	5	1	0	1700	2991	117·74	..	..
M Birmingham WW (Aberhenllan)	F. W. Macaulay, Esq., C.E.	5	1	0	1070	2232	87·89	..	..
M Llanbister (Llananno)	The Meteorological Office.	5	1	0	900	1298	51·10	..	..
2.—SEVERN—Right Bank Tributaries. 50 sq. mi.									
Knighth (Upper Woodhouse)	S. Wilson, Esq.	5	1	0	850	1076	42·35	..	..
MONTGOMERY. (Area, 797 sq. mi.)									
1.—DOVEY. 120 sq. mi.									
D Machynlleth (The Plas)	Mr. A. Gribble	5	1	0	41	2108	82·98	253	226
2.—YSTWYTH. 7 sq. mi.									
3.—WYE. 37 sq. mi.									
D Llangurig (Dernol)	The Meteorological Office..	5	1	0	870	1843	72·54	248	234
4.—SEVERN—Right Bank Tributaries. 154 sq. mi.									
D Llandinam (Plas Dinam)	Mr. D. Bowen	5	3	0	503	1199	47·20	224	187
M Dolfor (Gilfach)	S. Wilson, Esq.	5	1	0	1050	1245	49·03	..	..
Bishops Castle (Bishops Moat)	S. Wilson, Esq.	5	1	0	1130	921	36·27	..	..
D Newtown (Penarth Weir)	H. C. Jones, Esq., C.E.	8	1	0	321	1007	39·66	206	157
D Welshpool (Edderton Hall)	Miss A. M. Howell Evans	5	1	0	500	791	31·15	237	154
5.—SEVERN—Left Bank Tributaries. 479 sq. mi.									
Carno (Council School)	S. Wilson, Esq.	5	1	0	600	1493	58·76	..	..
Berriew (Brithdir Hall)	F. E. Marston, Esq.	5	2	0	350	883	34·75	214	155
D Welshpool (County School)	John Ward, Esq.	5	1	0	263	808	31·81	205	142
Welshpool (Fron Llwyd)	Major G. B. D. Harrison..	5	1	3	500	977	38·48	..	183
M Garthbibio (Bwlch Tomlyd)	The Meteorological Office..	5	1	0	1370	2146	84·50	..	..
D Llandysilio Rectory	Rev. H. G. Dickinson..	5	1	0	225	733	28·84	189	143
D Lake Vyrnwy	E. J. Bradley, Esq.	5	0	7	770	1859	73·21	212	196
Lake Vyrnwy (Bryn Gwyn)	J. R. Davidson, Esq., C.E.	8	1	0	1311	1883	74·12	..	..
D Lake Vyrnwy (Bank Cynon Isaf)	J. R. Davidson, Esq., C.E.	8	1	0	750	1767	69·55	242	195
Lake Vyrnwy (Ty Uchaf)	J. R. Davidson, Esq., C.E.	8	1	0	860	1842	72·52	..	..
Lake Vyrnwy (Heol-y-ffridd) 1.	J. R. Davidson, Esq., C.E.	8	1	0	913	2360	92·92	..	..
Lake Vyrnwy (Heol-y-ffridd) 2.	J. R. Davidson, Esq., C.E.	8	1	0	830	2290	90·14	..	..
Lake Vyrnwy (Tyn-y-ffridd)	J. R. Davidson, Esq., C.E.	8	1	0	1010	1729	68·09	..	..
Lake Vyrnwy (Lluestwen)	J. R. Davidson, Esq., C.E.	8	1	0	1667	2287	90·02	..	..
Lake Vyrnwy (Llwynrhiw)	J. R. Davidson, Esq., C.E.	8	1	0	1428	2712	106·76	..	..
Lake Vyrnwy (Craig-y-Gribbin)	J. R. Davidson, Esq., C.E.	8	1	0	1422	2135	84·05	..	..
Lake Vyrnwy (Eunant Bridge)	J. R. Davidson, Esq., C.E.	8	1	0	830	2760	108·65	..	..
Lake Vyrnwy (Carreg Goch)	J. R. Davidson, Esq., C.E.	8	1	0	1750	2344	92·30	..	..
Lake Vyrnwy (Fawnog)	J. R. Davidson, Esq., C.E.	8	1	0	1315	1844	72·59	..	..
FLINT. (Area, 256 sq. mi.)									
1.—DEE. 198 sq. mi.									
D Hanmer (Gredington)	Lord Kenyon, K.C.V.O....	5	0	10	300	847	33·34	229	174
D Overton (Fairleigh)	Dr. B. J. E. Wright	5	1	8	220	758	29·83	225	156
Buckley	W. Simmons, Esq.	5	1	0	553	881	34·70	..	..
D Hawarden (County School)	A. Lyon, Esq.	5	0	11	260	773	30·45	213	155
Northop (Soughton Hall)	Lord Justice Bankes	5	1	0	418	881	34·68	208	161
Cilcain (Cilcen Hall)	W. B. Yates, Esq.	5	0	7	650	880	34·65	219	166
D Hawarden Bridge	R. Hawkshaw, Esq.	8	1	3	22	741	29·15	205	148
D Shotwick Aerodrome	(+A) The Meteorological Office..	8	1	0	18	766	30·15	211	148
D Mostyn Vicarage	Rev. W. Vaughan-Jones	5	1	0	100	909	35·78	228	166
2.—CLWYD. 51 sq. mi.									
D Bodfari (Nantlys)	D. F. Pennant, Esq.	5	1	0	178	807	31·77	211	153
D Bodfari (Cae Gwyn)	Mrs. Morgan	5	1	0	542	775	30·51	219	168
D St. Asaph (St. Beuno's College)	Rev. L. Cardwell, S.J.	8	1	0	480	831	32·73	228	161
Dyserth Castle	J. B. Price, Esq.	5	0	6	350	695	27·38	..	..
D Rhyl (Sewage Works)	A. A. Goodall, Esq.	8	1	0	31	771	30·36	222	164
3.—SEVERN—Left Bank Tributaries. 7 sq. mi.									

## DIVISION XI.—MONMOUTH, WALES, AND THE ISLANDS—(con.).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain.		Days with ·01 in. or more.	Days with ·04 in. or more.
		Diam.	Height Ground	above Sea Level.	1923			
DENBIGH. (Area, 668 sq. mi.)		in.	ft.	in.	ft.	mm.	in.	
1.—DEE. 270 sq. mi.								
Glynceiriog (Plas Nantyr) . . . . .	C. B. C. Storey, Esq. . . . .	5	1	0	1450	1731	68·17	..
Chirk Castle Gardens . . . . .	Lord Howard de Walden . . . . .	5	1	2	630	1051	41·38	204
Ruabon (Trevor Hall) . . . . .	E. Lloyd Edwards, Esq. . . . .	5	1	0	500	1127	44·38	195
Wrexham (Ty Mawr Reservoir) . . . . .	F. Storr, Esq., C.E. . . . .	5	0	9	805	1081	42·58	229
Wrexham (Pack Saddle Res.) . . . . .	F. Storr, Esq., C.E. . . . .	5	0	9	370	978	38·49	243
Wrexham (Cae Llwyd Res.) . . . . .	F. Storr, Esq., C.E. . . . .	8	0	9	918	1209	47·62	230
Wrexham (Cae Llwyd Res.) . . . . .	F. Storr, Esq., C.E. . . . .	5	0	9	918	1080	42·52	229
Wrexham (Plas Power Coll.) . . . . .	W. W. Potts, Esq. . . . .	5	22	0	517	858	33·79	205
Brymbo (Pentre Broughton Sch) . . . . .	D. E. Rees, Esq. . . . .	5	1	0	680	861	33·90	210
R. Alwen (Hafod-llan-isaf) No.1 . . . . .	R. F. Baker, Esq., C.E. . . . .	5	1	0	1215	942	37·09	255
R. Alwen (Hafod-llan-isaf) No.2 . . . . .	R. F. Baker, Esq., C.E. . . . .	5	1	0	1172	1231	48·47	255
R. Alwen (Hafod-llan-isaf) No.3 . . . . .	R. F. Baker, Esq., C.E. . . . .	5	1	0	1169	1245	49·02	255
Pentre Voelas (Nant Heilyn) . . . . .	R. F. Baker, Esq., C.E. . . . .	5	1	0	1225	1681	66·19	..
R. Brenig (Hafod-yr-Onen) . . . . .	R. F. Baker, Esq., C.E. . . . .	5	1	0	1175	1289	50·73	229
Nantglyn (Pant-y-maen) . . . . .	R. F. Baker, Esq., C.E. . . . .	8	1	0	1320	1655	65·17	..
Llyn Bran . . . . .	R. F. Baker, Esq., C.E. . . . .	8	1	0	1428	1683	66·24	..
2.—CLWYD & C. 267 sq. mi.								
Pentre Celyn Council School . . . . .	John W. Jones, Esq. . . . .	5	1	0	330	950	37·41	209
Gyffylliog (Fachlwyd Hall) . . . . .	Elliott S. Currey, Esq. . . . .	5	1	0	640	1099	43·26	247
Gyffylliog (Brynhyfryd) . . . . .	E. Stanton Roberts, Esq. . . . .	5	1	0	560	1133	44·61	239
Ruthin (Ty Maur) . . . . .	Major Gen. C. L. Cary . . . . .	5	1	0	400	878	34·58	208
Ruthin (Bodangharad) . . . . .	F. S. Smith, Esq. . . . .	5	0	11	635	900	35·45	229
Llangynhafal (Plâs Drâw) . . . . .	Major R. Bromhead . . . . .	5	1	0	419	924	36·39	245
Gwytherin Council School . . . . .	D. Jones, Esq. . . . .	5	1	1	730	1413	55·64	219
Denbigh (Mental Hospital) . . . . .	W. Barker, Esq. . . . .	5	1	0	316	921	36·28	212
Llangerniew (Hafodunos) . . . . .	Mrs. T. Gee . . . . .	5	2	6	500	1438	56·60	..
Denbigh (Garn) . . . . .	W. D. W. Griffith, Esq. . . . .	5	1	0	447	1035	40·76	238
Trefnant (Trinity School) . . . . .	F. Rees, Esq. . . . .	5	1	6	240	997	39·26	..
Llanefydd (Rhyl W.W., S.) . . . . .	L. G. Hall, Esq., C.E. . . . .	5	1	0	600	979	38·54	..
Llanefydd (Rhyl W.W., W.) . . . . .	L. G. Hall, Esq., C.E. . . . .	5	1	0	580	817	32·16	..
Llanefydd (Plas Uchaf Res.) . . . . .	L. G. Hall, Esq., C.E. . . . .	5	1	0	485	869	34·22	236
Llanefydd (Glascoed Res.) . . . . .	L. G. Hall, Esq., C.E. . . . .	5	1	0	360	857	33·74	243
Llanrhaiadr (Plas Llangwyfan) . . . . .	J. R. Lloyd, Esq. . . . .	5	2	0	470	747	29·40	215
St. Asaph (Wygfair) . . . . .	(R) Col. H. R. L. Howard, D.S.O. . . . .	8	2	6	250	821	32·33	..
Abergele (Sea Road) . . . . .	Sydney Wilson, Esq. . . . .	5	1	0	30	819	32·24	219
Colwyn Bay (Council Offices) . . . . .	W. J. Dunning, Esq., C.E. . . . .	8	1	0	81	893	35·14	193
3.—CONWAY. 84 sq. mi.								
Pentre Foelas (Voelas Hall) . . . . .	Mr. T. Dickie . . . . .	5	1	3	640	1794	70·63	248
4.—SEVERN—Left Bank Tributaries. 47 sq. mi.								
Llanrhaiadr-yn-Mochnant . . . . .	David F. Jones, Esq. . . . .	5	1	0	400	1359	53·50	254
Llansilin (Penygwely Res.) . . . . .	G. W. Lacey, Esq., C.E. . . . .	5	1	0	1094	1051	41·37	221
MERIONETH. (Area, 661 sq. mi.)								
1.—DEE. 218 sq. mi.								
Bala (Eryl Aran) . . . . .	Mrs. Burton . . . . .	8	1	0	600	1916	75·42	243
Llanderfel (Palé Gardens) . . . . .	Mr. E. J. Edwards . . . . .	8	1	0	606	1731	68·15	243
Corwen (Rûg Gardens) . . . . .	J. S. Roberts, Esq. . . . .	8	1	2	500	1087	42·79	257
2.—CLWYD. 7 sq. mi.								
3.—GLASLYN. 92 sq. mi.								
Penrhyndeudraeth (HafodCaemaen) . . . . .	G. H. C. Haigh, Esq. . . . .	5	1	0	100	1685	66·32	274
Tan-y-bwlch (The Gardens) . . . . .	Mr. J. Roberts . . . . .	5	1	0	50	2276	89·60	275
Tan-y-bwlch (Dol-y-Moch) . . . . .	Mrs. Howland Jackson . . . . .	5	0	6	55	2419	95·23	279
Festiniog (Hafod Fawr) . . . . .	Office of Woods . . . . .	8	1	0	900	2631	103·58	259
Festiniog (Bryn Llewellyn) . . . . .	Mr. E. Roberts . . . . .	5	1	0	695	2330	91·75	..
Blaenau Festiniog (Llechwedd Q.) . . . . .	Messrs. J. W. Greaves & Sons . . . . .	5	1	0	700	3619	142·46	278

## DIVISION XI.—MONMOUTH, WALES, AND THE ISLANDS—(con.).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain.		Days with ·01 in. or more.	Days with ·04 in. or more.
		Diam.	Height Ground	above Sea Level.	1923			
MERIONETH—(con.).		in.	ft.	in.	ft.	mm.	in.	
4.—MAWDDACH & C. 262 sq. mi.								
D Towyn (Ynys-y-Maengwyn) ...	Roger Corbett, Esq. ....	5	1	0	14	1407	55·41	234 208
D Towyn (Bronffynnon) ...	Dr. T. Henry Jones. ....	5	1	0	180	1432	56·39	252 201
D Towyn (Peniarth) ...	Mrs. Wynne. ....	8	1	0	25	1749	68·84	246 222
D Tal-y-llyn Rectory ...	Rev. J. Pryce Jones. ....	5	1	0	250	2538	99·91	240 216
D Dolgelly (Dol'rhyd) ...	Col. P. H. Enthoven, D.L. ...	5	0	9	100	2088	82·19	273 219
D Dolgelly (Bryntirion) ...	E. P. Beale, Esq. ....	5	0	10	50	2289	90·13	261 223
D Trawsfynydd Camp. ....	E. Jones, Esq. ....	5	1	0	800	2315	91·14	254 238
5.—DOVEY. 82 sq. mi.								
Pennal (Talgarth Hall) ...	Mrs. F. Gott. ....	5	0	5	125	2142	84·32	217 205
Dinas Mawddwy (Dol. Hall) ...	Sydney Wilson, Esq. ....	5	1	0	250	2255	88·79	.. ..
6.—SEVERN—Left Bank Tributaries.								
CARNARVON. (Area, 572 sq. mi.)								
1.—BARDSEY ISLAND.								
2.—CONWAY & C. 146 sq. mi.								
M Lake Cowlyd (Llethyr Gwyn) cC. F. Farrington, Esq., C.E. ...		5	1	0	1700	2363	93·02	.. ..
M Lake Colwlyd (Gors-y-Llithrig) cC. F. Farrington, Esq., C.E. ...		5	1	0	1900	2426	95·50	.. ..
M Lake Cowlyd (Ffrith Fawr) ... cC. F. Farrington, Esq., C.E. ...		5	1	0	1700	2285	89·96	.. ..
L. Cowlyd (Ffrith Carreg Wen) cC. F. Farrington, Esq., C.E. ...		5	1	0	1168	2376	93·55	218 ..
Trefriw Wells. .... C. P. Adamson, Esq. ....		5	1	0	25	1533	60·34	196 169
D Lake Eigiau (Dam Site) .. (+A) H. J. Jack, Esq. ....		5	1	5	1245	2509	98·80	269 230
w Llanbedr-y-Cennin (Plasdulyn) W. T. Ward, Esq., C.E. ....		8	1	0	509	1665	65·55	.. ..
w Llanbedr-y-Cennin (Llyndulyn) W. T. Ward, Esq., C.E. ....		8	1	6	1632	1897	74·67	.. ..
Deganwy (Y Berlfa) ... (R) Willoughby Gardner, Esq. ....		5	1	0	35	935	36·82	.. ..
D Llandudno (Glanwydden School) Thomas Roberts, Esq. ....		5	1	6	28	869	34·23	214 171
D Llandudno ... W. Little, Esq. ....		5	1	0	22	828	32·62	227 169
3.—MENAI STRAITS, 221 sq. mi.								
D Madryn Castle (Farm School) .. J. Hines, Esq. ....		5	1	0	285	1176	46·31	236 188
Llanaelhaiarn (Council Sch.) ... J. Hughes, Esq. ....		5	1	0	600	1343	52·88	.. ..
D Pen-y-groes (Nebo School) .. Elias Thomas, Esq. ....		5	1	0	700	2891	113·82	277 231
Nantlle (Dorothea Quarries) .. W. J. Griffith, Esq. ....		8	50	0	400	1987	78·22	.. ..
Llandwrog (Glynllivon Park) .. Hon. F. G. Wynn. ....		5	1	0	100	1301	51·22	.. ..
Llandwrog (Glynllivon Nursery) Hon. F. G. Wynn. ....		5	1	0	200	1382	54·42	.. ..
Llandwrog (Glynllivon Garden) Hon. F. G. Wynn. ....		5	1	0	100	1386	54·58	243 201
Llandwrog (Glynllivon Fort) .. Hon. F. G. Wynn. ....		5	1	0	200	1431	56·36	.. ..
D Bettws Garmon ... Rev. T. C. V. Bastow. ....		5	1	0	414	2167	85·32	254 217
Carnarvon (Belan Fort) ... Hon. F. G. Wynn. ....		5	1	0	15	1069	42·10	.. ..
Lake Ogwen ... R. Hughes, Esq. ....		5	1	0	1006	3281	129·19	.. ..
D Llanbeblig (Cefn Rhos) ... Col. M. F. Preece. ....		8	..	..	..	1278	50·30	253 192
D Bryn Bras (Castle Gardens) .. Mr. W. Owen. ....		5	1	3	550	1735	68·29	239 213
d Llanberis (Llandinorwig School) John Roberts, Esq. ....		5	1	0	850	1949	76·75	.. ..
D Penisarwaen (Meillionydd) ... J. Rees Foster, Esq. ....		5	1	0	420	1635	64·39	245 209
D Bethesda (St. Ann's Vicarage) .. Rev. W. Morgan. ....		5	1	6	500	2031	79·96	274 213
D Bethesda (Penrhyn Quarries) .. W. D. Hobson, Esq. ....		8	1	0	528	2178	85·76	276 233
D Bangor (Penrhyn Castle Gdns.) Mr. J. Kneller. ....		5	1	0	150	1200	47·24	255 183
d Bangor (Town Hall) ... J. Gill, Esq. ....		8	1	0	51	1289	50·76	.. 181
D Llanfairfechan ... Mr. W. Timmins. ....		5	1	0	103	1204	47·39	213 173
w Penmaenmawr (Mountain Res.) R. J. Hughes, Esq. ....		5	1	6	1200	1481	58·32	.. ..
D Penmaenmawr (Council Offices) R. J. Hughes, Esq. ....		5	1	6	100	1051	41·38	205 166
4.—ERCH & C. 155 sq. mi.								
D Abersoch ... Sir W. H. Winterbotham. ..		8	1	0	100	1325	52·16	228 210
Pwllheli (Bodfean Hall) ... Hon. F. G. Wynn. ....		5	1	0	170	1284	50·56	209 185
Pwllheli (Bodfean Hall Gdns.) Hon. F. G. Wynn. ....		5	1	0	200	1216	47·87	.. ..
d Fourcrosses (Council School) .. Morris Williams, Esq. ....		5	1	3	200	1483	58·39	.. ..



## DIVISION XI.—MONMOUTH, WALES, AND THE ISLANDS—(con.).

STATIONS.	AUTHORITIES.	Rain Gauge.				Depth of Rain.		Days with ·01 in. or more.	Days with ·04 in. or more.
		Diam.	Height Ground	above Sea Level.		1923			
CARNARVON—(con.).		in.	ft.	in.	ft.	mm.	in.		
5.—GLASLYN. 50 sq. mi.									
D Portmadoc (Wern)	.....R. M. Greaves, Esq.	5	1	0	90	1788	70·38	264	219
Snowdon (Wenallt)	.....No. 6 H. J. Jack, Esq.	5	1	2	1050	4489	176·75	..	..
D Snowdon (Cwm Dyli)	.....No. 11 H. J. Jack, Esq.	5	1	0	310	4067	160·13	279	251
Snowdon (Cwm Dyli, Old Rd.)	14 H. J. Jack, Esq.	5	0	10	325	3876	152·61	..	..
Snowdon (Llewedd)	.....No. 2 H. J. Jack, Esq.	5	1	3	1485	4703	185·15	..	..
M Snowdon (Delta)	.....No. 7 H. J. Jack, Esq.	5	1	0	1435	5391	212·25	..	..
M Snowdon (Glaslyn)	.....No. 3 H. J. Jack, Esq.	5	0	8	2050	4615	181·70	..	..
M Snowdon (Teyrn)	.....No. 1 H. J. Jack, Esq.	5	1	0	1080	4468	175·90	..	..
d Snowdon (Llydaw Intake)	.. 10 H. J. Jack, Esq.	5	1	0	1480	4594	180·85	..	..
d Snowdon (L. Llydaw Copper M.)	9 H. J. Jack, Esq.	5	1	5	1480	4816	189·62	..	..
M Snowdon (Llyn Llydaw)	No. 5 H. J. Jack, Esq.	5	1	0	1470	4025	158·45	..	..
M Snowdon (Crib Goch)	.. No. 8 H. J. Jack, Esq.	5	1	3	2340	4955	195·10	..	..
ANGLESEY. (Area, 275 sq. mi.)									
Llandwyn Island	.....Hon. F. G. Wynn	5	1	0	40	751	29·57	..	..
D Llangadwaladr (Bodorgan)	....Mr. W. Pilgrim	5	1	0	100	1183	46·57	233	181
Llanfaelog	.....H. S. Lowe, Esq.	5	1	0	50	1035	40·75	..	..
Llangefni (Fronhenlog)	.....A. H. Withinshaw, Esq.	5	1	0	125	1171	46·10	..	..
Beaumaris (Fryars)	.....Mrs. Burton	10	2	0	20	1205	47·45	..	..
D Llangwilog (Trescawen)	.....Mrs. Pritchard-Rayner	5	1	0	239	1322	52·04	214	193
D Bodedern (Presaddfed)	.....Lt.-Col. W. A. Fox-Pitt	5	1	0	155	1207	47·54	244	201
D Holyhead (Salt Island)	..(+A) The Meteorological Office	8	1	0	26	937	36·87	218	165
D Llanerchymedd Llwydiarth	Esq. Miss Prichard	5	1	6	175	1186	46·68	240	186
D Penrhoslligwy School	.....T. Rowlands, Esq.	5	1	0	140	1172	46·15	221	172
D Lligwy	.....Lord Boston	5	1	0	170	1085	42·70	216	165
Amlwch (Dyffryn Adda)	.....Major T. Fanning Evans	5	1	2	178	1109	43·67	228	175
ISLE OF MAN. (Area, 227 sq. mi.)									
Castletown (Langness)	.....Board of Northern Lights	8	1	0	75	767	30·18?	181	147
Santon Vicarage	.....Rev. R. Jones	5	0	10	245	1079	42·50	229	..
D Douglas (Borough Cemetery)	..H. A. Bridge, Esq.	8	1	0	284	1200	47·26	253	197
D Douglas (Clype Res., Onchan)	..H. A. Bridge, Esq.	8	1	0	440	1232	48·51	248	188
Baldwin Reservoir	.....H. A. Bridge, Esq.	8	0	8	480	1467	57·75	246	206
Maughold Head	.....Board of Northern Lights	5	0	7	225	725	28·53?	171	148
D Ramsey (Town Hall)	.....G. W. Kewin, Esq.	8	15	0	18	1172	46·13	215	169
D Ramsey (North Promenade)	..G. W. Kewin, Esq.	5	2	0	5	1271	50·03	230	179
CHANNEL ISLANDS. (Area, 76 sq. mi.)									
JERSEY. 45 sq. mi.									
D Pontac (St. Edmunds)	.....Dr. E. G. Barnes	5	1	6	30	871	34·31	211	159
D St. Brelade (La Sergenté)	.....J. E. Le Boutillier, Esq.	5	1	4	188	814	32·05	210	156
St. Aubins (Belle Vue)	.....C. J. Sumner, Esq.	5	1	4	220	871	34·28	214	162
D St. Saviours (Beauvoir)	.....Capt. G. T. Robin	5	0	10	200	939	36·99	205	167
D St. Lawrence (Little Grove)	..R. E. B. Voisin, Esq.	5	1	0	60	919	36·16	212	167
D Millbrook (St. Helier W.W.)	..A. J. Jenkins, Esq., C.E.	5	0	11	53	880	34·65	196	160
St. Ouen's Manor	.....R. Malet de Carteret, Esq.	5	2	6	270	903	35·55	198	165
d Trinity Rectory	.....Rev. S. T. Gruchy	5	2	6	375	935	36·81	233	158
GUERNSEY. 25 sq. mi.									
D St. Peter in the Wood (Hawthorns)	L. J. Nicolle, Esq.	5	1	0	100	735	28·95	208	147
D St. Martin's (Les Blanchés)	....B. T. Rowsell, Esq.	5	1	0	310	966	38·02	213	163
D St. Martin's Rectory	.....Rev. R. Coulthard	5	1	0	311	971	38·22	215	155
D St. Martin's (Hautnez)	.....A. A. Allain, Esq., C.E.	5	0	8	336	1017	40·03	225	175
D St. Martin's (Kragga Karna)	..J. H. Welch, Esq.	5	1	6	200	1007	39·63	198	156
D Fort Road (La Cotte)	.....Major S. Carey Curtis	5	1	0	285	963	37·93	204	154
D Villiaze	.....A. A. Allain, Esq., C.E.	5	0	6	302	1028	40·49	214	165
D St. Andrew (Les Vauxbelets)	..Rev. Bro. Lewis	5	1	0	200	946	37·25	193	142
D St. Peter Port (Grange Road)	..H. Vere Miles, Esq.	5	1	0	174	1083	42·63	217	158

## DIVISION XI.—MONMOUTH, WALES, AND THE ISLANDS—(con.).

STATIONS.	AUTHORITIES.	Rain Gauge.				Depth of Rain. 1923	Days with ·01 in. or more.	Days with ·04 in. or more.	
		Diam.	Height Ground	above Sea Level.					
CHANNEL ISLANDS—(con.).		in.	ft.	in.	ft.	mm.	in.		
GUERNSEY—(con.).									
d St. Peter Port (Queens Road) . . . . .	A. A. Allain, Esq., C.E. . . . .	5	0	6	220	1101	43·34	213	167
d St. Peter Port (Market Street) . . . . .	B. T. Rowswell, Esq. . . . .	5	52	8	100	1066	41·96	198	159
d Rohais (Colborne Villa) . . . . .	T. Guilbert, Esq., C.E. . . . .	5	1	0	120	972	38·27	217	159
d Menheniot Vintries . . . . .	Major H. Roper . . . . .	5	1	0	97	1089	42·87	190	163
d St. Sampsons (Lowlands) . . . . .	Major J. Miles . . . . .	5	on roof		..	845	33·28	197	149
d Fort Doyle (Platte Fougère) . . . . .	Major J. Miles . . . . .	..	on roof		..	741	29·17?	..	143
SARK. 2 sq. mi.									
d Pointe Robert . . . . .	B. T. Rowswell, Esq. . . . .	5	1	0	215	943	37·13	200	156
HERM. 1 sq. mi.									
ALDERNEY. 3 sq. mi.									
d St. Anne's Rectory . . . . .	B. T. Rowswell, Esq. . . . .	5	1	0	205	911	35·87	193	149

## SCOTLAND.

## DIVISION XII.—SOUTHERN COUNTIES.

STATIONS.	AUTHORITIES.	Rain Gauge.				Depth of Rain.		Days with ·01 in. or more.	Days with ·04 in. or more.
		Diam.	Height above Ground	in.	ft.	1923	in.		
WIGTOWN. (Area, 488 sq. mi.)									
1.—LOCH RYAN. 46 sq. mi.									
Loch Ryan Lighthouse .....	Board of Northern Lights	5	1	6	10	1137	44·77	201	185
2.—WESTERN GALLOWAY. 44 sq. mi.									
Mull of Galloway .....	Board of Northern Lights..	7	3	10	245	859	33·81	..	..
d Logan House .....	K. McDouall, Esq. ....	8	1	0	80	1167	45·95	268	190
Killantringan Lighthouse .....	Board of Northern Lights	5	1	0	10	808	31·81	..	..
Corsewall .....	Board of Northern Lights	8	4	0	40	1103	43·42	223	194
3.—LUCE BAY. 186 sq. mi.									
d Port William (Monreith) .....	Major R. F. Brebner ....	5	0	5	145	1227	48·32	266	187
d Stoneykirk (Ardwell House) .....	Sir E. Orde Stewart, Bt...	8	3	0	65	1199	47·22	252	188
d Glenluce (Ladyburn) .....	Peter Taylor, Esq. ....	5	1	0	15	1453	57·22	276	220
4.—CREE & WIGTOWN BAY. 212 sq. mi.									
d Whithorn (Physgill) .....	F. B. Hopkins, Esq.....	5	1	0	170	1092	43·00	242	178
d Whithorn (Glasserton) .....	Adm. Johnston Stewart, C.B.	5	1	0	225	1141	44·93	242	173
d Kirkcowan (Craiglaw) .....	Major W. M. F. Hamilton..	5	0	9	300	1630	64·18	245	217
KIRKCUDBRIGHT. (Area, 902 sq. mi.)									
1.—DOON. 16 sq. mi.									
2.—CREE & WIGTOWN BAY. 222 sq. mi.									
d Borgue (Senwick House) .....	Lewis D. Wigan, Esq. ....	8	1	2	150	1231	48·46	232	182
d Borgue (Knockbrenx) .....	J. Douglas Brown, Esq. ....	5	1	0	10	1255	49·42	234	190
d Palmure (Bargaly) .....	Mrs. Colvin Stewart .....	8	3	5	60	1783	70·19	279	233
3.—DEE. 377 sq. mi.									
Little Ross Lighthouse .....	Board of Northern Lights..	8	3	11	100	923	36·36 ?	..	..
d Mossdale (Hensol) .....	R. J. Cuninghame, Esq. ....	8	1	0	200	1527	60·10	242	192
New Galloway (Glenlee Park) .....	Mr. C. Jamieson .....	5	0	0	224	1999	78·72	..	196
d Dalry (Glendaroch) .....	Miss M. Barbour .....	5	0	11	192	1666	65·60	255	206
d Dalry (Garroch) .....	Arthur Young, Esq. ....	8	1	3	250	1868	73·53	235	222
d Dalry (Forrest Lodge) .....	Sir John Wood, Bart., M.P.	5	1	0	500	2047	80·59	246	215
d Carsphairn (Shiel) .....	Mr. S. Wilson .....	5	1	0	850	2434	95·83	271	244
d Carsphairn (Knockgray) ....	Miss Clark Kennedy .....	8	1	0	641	1841	72·48	255	228
4.—URR & C. 196 sq. mi.									
Auchencairn (Torr House) ....	The late W. Ovens, Esq....	5	0	8	50	1540	60·63	..	..
d Dalbeattie (Southwick House) ..	Sir E. Orde Stewart, Bart.	5	1	0	75	1487	58·55	241	192
d Dalbeattie (Kirkennan) .....	Wellwood Maxwell, Esq. ....	5	0	9	30	1473	58·00	237	193
d Dalbeattie (Drumstinchall) ..	Mrs. R. F. Hanbury .....	8	0	11	400	1512	59·52	221	207
d Dalbeattie (Richorn Wood) ..	Mrs. McNae .....	5	1	0	54	1343	52·87	208	181
d Kirkpatrick Durham (Glenlair) ..	Mrs. Hannay .....	5	0	9	250	1419	55·88	212	189
5.—NITH & C. 91 sq. mi.									
d Dumfries (Cargen) .....	Col. R. F. Dudgeon .....	5	0	10	80	1487	58·55	240	186
Lochrutton (Dumfries W.W.) ..	J. Smellie, Esq. ....	5	1	0	273	1506	59·30	259	..
d Dumfries (Lincluden House) ..	Miss P. A. Young, M.B.E.	5	1	0	60	1302	51·25	228	191
d Dumfries (Jardington) .....	J. Rutherford, Esq. ....	5	1	0	50	1333	52·48	244	197
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) ..	Earl of Mansfield .....	5	1	0	70	1028	40·47	205	163
d Dumfries (Crichton Roy. Inst.) ..	C.C. Easterbrook, Esq., M.D.	5	1	0	140	1170	46·05	216	175
d Amisfield (Glenae) .....	H. Sharpe Gordon, Esq., OBE.	5	0	11	300	1276	50·22	226	185
Moniaive (Glencrosh) .....	Miss Macmillan .....	5	2	0	400	1552	61·12	240	189
d Moniaive (Maxwellton House) ..	Sir Claude V. E. Laurie, Bt.	5	1	3	400	1437	56·56	..	180
d Durrisdeer (Drumlanrig Gdns.) ..	Duke of Buccleuch, K.T. .	5	0	9	191	1427	56·17	..	196

## DIVISION XII.—SOUTHERN COUNTIES—(con.).

STATIONS.	AUTHORITIES.	Rain Gauge.				Depth of Rain.		Days with ·01 in. or more.	Days with ·04 in. or more.
		Diam.	Height Ground	above Sea Level.	1923				
DUMFRIES—(con.).		<i>in.</i>	<i>ft.</i>	<i>in.</i>	<i>ft.</i>	<i>mm.</i>	<i>in.</i>		
<b>4.—ANNAN. 367 sq. mi.</b>									
Dalton (Whitcroft) .....	W. Maitland-Heriot, Esq.	5	0	6	240	1370	53·95	234	185
D Dalton (Kirkwood) .....	Arthur J. Steel, Esq.	5	0	8	245	1640	64·55	257	200
D Ecclefechan (Burnfoot) .....	Major H. C. Irving	5	0	11	160	1334	52·53	..	..
D Lockerbie (Castle Milk) .....	David McIntosh, Esq.	5	1	6	199	1336	52·59	216	186
M Lockerbie (Thornbank) .....	W. Murdoch, Esq.	10	3	0	259	1186	46·71	..	..
D Lochmaben (Esthwaite) .....	W. J. Halliday, Esq.	5	1	0	166	1313	51·71	238	193
Moffat (Craigielands) .....	Mr. Luke Fraser	5	1	6	300	1640	64·56	..	..
<b>5.—ESK. 275 sq. mi.</b>									
M Canonbie (Byreburnfoot) .....	Mr. David Crabbe	3	0	9	160	1540	60·63	..	..
D Canonbie (Irvine House) .....	J. H. Milne Home, Esq.	5	0	9	200	1561	61·46	222	193
D Langholm (Broomholm) .....	W. C. Everley Taylor, Esq.	5	1	0	266	1610	63·37	231	200
D Langholm (Drove Road) .....	Mrs. Jackson	5	0	9	270	1686	66·37	259	207
D Langholm (Craig) .....	J. Little, Esq.	5	1	0	450	1557	61·31	216	181
D Langholm (Ewes) .....	Mrs. Lyall	5	1	0	445	1663	65·49	..	..
D Eskdalemuir Observatory (+A)	The Meteorological Office	8	1	4	794	1745	68·71	264	214
ROXBURGH. (Area, 666 sq. mi.)									
<b>1.—NORTH TYNE. 6 sq. mi.</b>									
<b>2.—TWEED, LOWER—Right Bank Tributaries. 57 sq. mi.</b>									
D Kelso (Lempitlaw) .....	J. Stirling, Esq.	5	1	0	635	638	25·12	200	156
D Kelso (Springwood Seed Ground)	Messrs. Laing & Mather	5	1	0	200	593	23·33	192	144
<b>3.—TWEED—Teviot &amp; c. 431 sq. mi.</b>									
D Hawick (Wolfelee) .....	Capt. Paton	5	0	10	537	1009	39·74	230	169
D Hawick (Branxholme) .....	J. G. Winning, Esq.	5	0	6	457	932	36·71	232	166
D Robertson Manse .....	Rev. A. E. McInnes	5	1	0	730	898	35·37	..	..
D Denholm (Spital Tower) .....	T. G. Leadbetter, Esq.	5	0	9	410	781	30·75	227	159
D Jedburgh (Jedneuk) .....	T. Yool, Esq.	5	1	0	271	628	24·74	243	152
D Ancrum (Monteviot) .....	Bertram Talbot, Esq.	5	2	6	150	715	28·16	229	167
D St. Boswells (The Fens) .....	J. J. Fairbairn, Esq.	5	1	6	260	617	24·29	184	138
St. Boswells (Monksford) .....	Lt.-Col. A. Mitchell	5	0	11	320	674	26·55	..	..
Old Melrose Gardens .....	Mr. S. Brooker	5	1	0	200	704	27·70	..	..
Kelso (Springwood Park) .....	Mr. W. Chaplin	5	1	0	130	592	23·30	197	135
<b>4.—TWEED—Ettrick &amp; c. 10 sq. mi.</b>									
D Melrose (Asylum) gauge A....	T. C. Mitchell, Esq.	5	0	6	480	780	30·72	217	159
D Melrose (Asylum) gauge B....	T. C. Mitchell, Esq.	5	1	0	480	738	29·05	217	159
<b>5.—TWEED—Gala. 6 sq. mi.</b>									
<b>6.—TWEED—Leader &amp; c. 25 sq. mi.</b>									
D Melrose (Drygrange) .....	A. T. Roberts, Esq.	5	1	0	360	662	26·07	214	148
<b>7.—TWEED, LOWER—Left Bank Tributaries. 25 sq. mi.</b>									
D Kelso (Broomlands) .....	J. C. Scott, Esq.	5	1	0	193	597	23·51	218	142
<b>8.—ESK. 106 sq. mi.</b>									

## DIVISION XIII.—SOUTH-EASTERN COUNTIES.

SELKIRK. (Area, 268 sq. mi.)

<b>1.—TWEED—Teviot &amp; c. 34 sq. mi.</b>								
Selkirk (Whitmuir Hall) .....	Major A. G. Cowan	5	1	0	800	769 30·26	..	..
<b>2.—TWEED—Ettrick &amp; c. 192 sq. mi.</b>								
D Ettrick Manse .....	Rev. A. Horn	5	1	0	796	1650 64·96	260	205
M Edinburgh W.W. (Meggat Hd.)	1 Messrs. Leslie & Reid, C.E.	5	1	3	1496	1748 68·81	..	..
Selkirk (Lindean Reservoir) ...	S. Pittillo, Esq.	5	1	0	900	804 31·66	..	..

## DIVISION XIII.—SOUTH-EASTERN COUNTIES—(con.).

STATIONS.	AUTHORITIES.	Rain Gauge.				Depth of Rain.		Days with ·01 in. or more.	Days with ·04 in. or more.
		Diam.	Height Ground	above Sea Level.		1923			
SELKIRK—(con.).		in.	ft.	in.	ft.	mm.	in.		
3.—TWEED, UPPER—Right Bank Tributaries. 17 sq. mi.									
4.—TWEED, UPPER—Left Bank Tributaries. 19 sq. mi.									
D Caddonfoot (Fairnilee) . . . . .	Alex. F. Roberts, Esq. . . . .	5	1	0	450	855	33·68	208	156
Galashiels (The Peel Clovenfords) . . . . .	W. R. Ovens, Esq. . . . .	6	1	0	500	961	37·85	..	..
5.—TWEED—Gala. 6 sq. mi.									
Galashiels (Stantling Craigs) . . . . .	Capt. F. H. Brown . . . . .	12	1	3	800	937	36·90	..	..
PEEBLES. (Area, 348 sq. mi.)									
1.—TWEED, UPPER—Right Bank Tributaries. 127 sq. mi.									
M Edin. W.W. (Ravenscraig) . . . . .	3 Messrs. Leslie & Reid, C.E. . . . .	5	1	3	2258	2206	86·85	..	..
M Edin. WW (Gameshope Loch) . . . . .	4 Messrs. Leslie & Reid, C.E. . . . .	5	1	3	1860	2066	81·35	..	..
M Edin. WW (Loch Craig Head) . . . . .	2 Messrs. Leslie & Reid, C.E. . . . .	5	1	0	2627	1680	66·15	..	..
Edin. WW (Gameshope Farm) . . . . .	5 Messrs. Leslie & Reid, C.E. . . . .	5	1	3	1538	1950	76·78	..	..
M Edin. WW (Talla Linns Foot) . . . . .	6 Messrs. Leslie & Reid, C.E. . . . .	8	1	3	966	1817	71·52	..	..
M Edin. WW (Quarter Hill) No. 7 . . . . .	Messrs. Leslie & Reid, C.E. . . . .	8	1	3	1196	1446	56·93	..	..
D Edin. WW (Victoria Lodge) . . . . .	8 Messrs. Leslie & Reid, C.E. . . . .	5	1	3	900	1454	57·24	245	200
2.—TWEED, UPPER—Left Bank Tributaries. 192 sq. mi.									
Stobo Castle . . . . .	Major J. Ainslie . . . . .	5	1	0	594	1147	45·14	250	198
D Dolphinton (Castle Craig) . . . . .	James Mann, Esq. . . . .	5	0	10	820	1069	42·08	248	201
D West Linton (Woodlea Cottage) . . . . .	Messrs. Leslie & Reid, C.E. . . . .	5	1	0	801	1005	39·57	269	198
D West Linton (Taieri) . . . . .	W. Mackie, Esq. . . . .	5	1	0	769	1099	43·25	289	198
3.—ESK. 23 sq. mi.									
D Eddlestone (Portmore Res.) . . . . .	Messrs. Leslie & Reid, C.E. . . . .	11	1	0	1000	1012	39·86	273	188
M Penicuik (N. Esk Reservoir) . . . . .	Mr. W. Tod . . . . .	11	0	6	1150	1205	47·45	..	..
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. T. J. Fleming . . . . .	5	1	2	320	679	26·75	200	157
Lauder (Burncastle) . . . . .	J. G. S. Turnbull, Esq. . . . .	5	1	0	900	835	32·88	..	..
M Earnsclough Burn (Blythe Rig) . . . . .	J. G. S. Turnbull, Esq. . . . .	5	1	0	1200	1056	41·59	..	..
3.—TWEED, LOWER—Left Bank Tributaries. 115 sq. mi.									
Coldstream (Lochton) . . . . .	J. Aitchison, Esq. . . . .	5	1	0	151	612	24·11	..	..
D Coldstream (The Hirsell) . . . . .	Mr. D. Black . . . . .	5	1	4	130	612	24·08	203	142
D Swinton House <i>Snowdon</i> (+A) . . . . .	Rev. A. E. Swinton . . . . .	5	1	2	200	623	24·53	216	143
4.—TWEED—Whiteadder. 164 sq. mi.									
D Marchmont House . . . . .	R. F. McEwen, Esq. . . . .	5	1	0	498	765	30·12	220	163
Duns (Nisbet House Gdns.) . . . . .	Mr. W. Cowieson . . . . .	5	1	0	290	674	26·53	236	153
D Duns Castle . . . . .	F. S. Hay, Esq. . . . .	5	1	0	500	698	27·47	240	154
D Duns (Manderston) . . . . .	Mr. F. J. Marshall . . . . .	5	1	6	356	768	30·24	211	167
West Foulden . . . . .	J. Hewat Craw, Esq. . . . .	5	1	0	250	608	23·93	..	..
5.—EAST COAST STREAMS. 80 sq. mi.									
St. Abb's Head . . . . .	Board of Northern Lights . . . . .	8	4	3	224	649	25·57	..	..
HADDINGTON. (Area, 267 sq. mi.)									
1.—TWEED—Leader. 1 sq. mi.									
2.—TWEED—Whiteadder. 35 sq. mi.									
3.—EAST COAST STREAMS. 69 sq. mi.									
Barnsness Lighthouse . . . . .	Board of Northern Lights . . . . .	5	1	2	7	518	20·39?	..	..

## DIVISION XIII.—SOUTH-EASTERN COUNTIES—(con.).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain.		Days with ·01 in. or more.	Days with ·04 in. or more.	
		Diam.	Height Ground	above Sea Level.	1923				
HADDINGTON—(con.).		in.	ft.	in.	ft.	mm.	in.		
4.—TYNE & C. 114 sq. mi.									
Lammermuir H. (West Hopes)	J. Ross, Esq., C.E.	5	2	0	750	805	31·68	..	..
Lammermuir H. (Stobshiel Res.)	A. J. Ross, Esq., C.E.	5	2	0	998	727	28·62	..	..
Lammermuir H. (Stobshiel Res.)	B. J. Ross, Esq., C.E.	5	2	0	950	907	35·72	..	..
Lammermuir H. (Lammerloch)	J. Ross, Esq., C.E.	5	1	0	900	734	28·91	..	..
Haddington (Public School)	A. Burnett, Esq.	5	1	0	170	599	23·58	..	..
Prestonkirk (Knowes)	J. Rattray, Esq.	5	1	0	78	621	24·43	189	132
Prestonkirk (Smeaton)	Sir A. Buchan-Hepburn	5	1	0	100	602	23·71	172	137
5.—FIRTH OF FORTH. 48 sq. mi.									
North Berwick Reservoir	J. C. Miller, Esq., C.E.	5	1	6	150	579	22·78	191	140
North Berwick (Hospital)	J. C. Miller, Esq., C.E.	5	1	0	153	550	21·65	199	127
6.—INSULAR.									
MIDLOTHIAN. (Area, 369 sq. mi.)									
1.—TWEED—Gala. 68 sq. mi.									
Stow (Cragdale)	J. Pringle, Esq.	5	0	6	642	953	37·51	..	..
2.—TYNE. 28 sq. mi.									
Oxenford Castle Gardens	Mr. A. C. Scott	5	1	2	452	699	27·50	209	164
3.—FIRTH OF FORTH. 3 sq. mi.									
4.—ESK. 116 sq. mi.									
Moorfoot Hills (Bowbate)	Messrs. Leslie & Reid, C.E.	11	0	6	1260	1427	56·16	..	..
Moorfoot Hills (Gladhouse Res.)	Messrs. Leslie & Reid, C.E.	5	0	8	915	1024	40·33	268	198
Moorfoot Hills (Rosebery)	Messrs. Leslie & Reid, C.E.	4	0	9	750	949	37·38	259	181
Moorfoot Hills (Edgelaw)	Messrs. Leslie & Reid, C.E.	4	0	10	654	910	35·82	258	181
Gorebridge (Deanbank)	A. Wilson Spalding, Esq.	5	1	0	500	786	30·96	253	167
Pentland Hills (Harehill)	Messrs. Leslie & Reid, C.E.	11	1	7	1297	1026	40·38	..	..
Pentland Hills (Martyrs Cross)	Messrs. Leslie & Reid, C.E.	5	1	0	750	1007	39·66	272	180
Pentland Hills (Loganlea)	Messrs. Leslie & Reid, C.E.	5	1	0	811	934	36·78	212	169
Pentland Hills (Glencorse Fil.)	Messrs. Leslie & Reid, C.E.	5	1	0	638	903	35·53	224	170
Pentland Hills (Glen Cottage)	Messrs. Leslie & Reid, C.E.	5	1	2	739	945	37·19	224	177
Milton Bridge (Bush)	J. S. Abernethy, Esq.	5	1	0	600	875	34·46	231	173
Newbattle (Public School)	W. Fowler, Esq.	5	4	3	300	614	24·17	191	134
Musselburgh (Pinkieburn)	Mr. G. Wright	5	1	2	50	619	24·39	..	132
5.—ALMOND & C. 153 sq. mi.									
Pentland Hills (Crosswood)	Messrs. Leslie & Reid, C.E.	5	1	0	950	1116	43·94	221	204
Pentland Hills (Harperrig)	Messrs. Leslie & Reid, C.E.	5	1	0	900	1107	43·57	258	195
Pentland Hills (Morton)	Messrs. Leslie & Reid, C.E.	5	1	0	749	999	39·34	272	190
West Calder (Addiewell)	Scottish Oils, Ltd.	12	24	3	620	969	38·15	220	180
Balerno (Cockburn Hill)	R. Cross, Esq.	5	1	0	767	910	35·82	207	175
Pentland Hills (Harlaw Res.)	Messrs. Leslie & Reid, C.E.	5	1	0	800	779	30·65	216	139
Pentland Hills (Bonally Res.)	Messrs. Leslie & Reid, C.E.	11	0	6	1112	925	36·40	..	..
Pentland Hills (Clubbiedean Rs.)	Messrs. Leslie & Reid, C.E.	4	0	6	773	782	30·79	230	156
Pentland Hills (Swanston)	Messrs. Leslie & Reid, C.E.	5	0	6	550	786	30·93	224	160
Pentland Hills (Fairmilehead)	Messrs. Leslie & Reid, C.E.	5	1	0	590	741	29·19	190	166
Liberton (Alnwick Hill)	Messrs. Leslie & Reid, C.E.	5	1	0	407	665	26·20	196	133
Colinton (Firhill Tank)	Messrs. Leslie & Reid, C.E.	5	0	6	412	698	27·47	219	149
Liberton (College Garden)	A. McCallum, Esq.	5	1	0	190	649	25·56	192	138
Edinburgh (Royal Observatory)	Prof. R. A. Sampson, F.R.S.	8	1	0	442	615	24·21	212	141
Edinburgh (Napier Road)	A. Harrison, Esq.	5	1	2	300	620	24·40	210	136
Edinburgh (The Academy)	M. McC. Fairgrieve, Esq.	5	1	0	70	603	23·75	196	134
Edinburgh (Univ. Engin. Lab.)	Prof. T. Hudson Beare	5	1	0	227	593	23·36	198	131
Edinburgh (St. Roque)	J. Cowan, Esq.	5	0	10	270	652	25·67	214	145
Edinburgh (City Observatory)	Sir W. Peck	8	1	0	348	558	21·99	190	128
Edinburgh (Charlotte Square)	Messrs. Leslie & Reid, C.E.	11	1	6	190	588	23·15	..	..
Davidson's Mains (Broomfield)	J. I. Balfour-Melville, Esq.	5	0	10	42	565	22·23	193	140
6.—CLYDE—Right Bank Tributaries. 1 sq. mi.									

## DIVISION XIII.—SOUTH-EASTERN COUNTIES—(con.).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain.		Days with ·01 in. or more.	Days with ·04 in. or more.	
		Diam.	Height Ground	above Sea Level.	1923				
LINLITHGOW. (Area, 120 sq. mi.)		in.	ft.	in.	ft.	mm.	in.		
1.—ALMOND & C. 60 sq. mi.									
M Uphall	No. 7. Messrs. Leslie & Reid, C.E.	8	1	4	790	891	35·10	..	..
M Uphall	No. 8. Messrs. Leslie & Reid, C.E.	8	1	4	577	857	33·73	..	..
M Uphall	No. 6. Messrs. Leslie & Reid, C.E.	8	1	4	680	857	33·75	..	..
M Uphall	No. 3. Messrs. Leslie & Reid, C.E.	8	1	2	711	867	34·14	..	..
D Uphall (Bangour Asylum)	Col. J. Keay	5	1	0	587	804	31·66	249	171
d Uphall	Scottish Oils, Ltd.	8	0	10	380	809	31·86	..	..
D Dalmeny House.	Mr. D. T. Johnston.	5	0	9	50	642	25·27	207	138
2.—FORTH—Right Bank Tributaries. 59 sq. mi.									
D Bathgate (Filters).	No. 1. A. L. Reid, Esq.	5	0	9	640	920	36·22	214	172
M Bathgate (Petershill Res.)	No. 2. A. L. Reid, Esq.	5	0	9	710	784	30·87	..	..
M Bathgate (Ballencrieff R.)	No. 3. A. L. Reid, Esq.	5	0	9	792	782	30·80	..	..
M Torphichen (Lochcote)	Wm. Beattie, Esq.	5	0	4	550	895	35·25	..	..
D Uphall (Beecraigs)	Messrs. Leslie & Reid, C.E.	..	..	..	531	945	37·20	199	180
M Carribber Reservoir	Wm. Beattie, Esq.	5	0	4	400	869	34·21	..	..
D Linlithgow (Grange)	H. M. Cadell, Esq.	5	0	9	430	728	28·67	211	149
D Linlithgow (Preston House)	Mr. C. Blair	5	1	0	380	870	34·25	209	168
D Linlithgow Academy	J. Beveridge, Esq.	5	1	0	170	934	36·77	251	174
Bo'ness (Neidpath Cottage)	Mr. J. Grant	5	2	0	200	728	28·66	..	..
Bo'ness (Grange School)	J. Gray, Esq.	5	2	0	100	876	34·49	..	..
3.—CLYDE—Right Bank Tributaries. 1 sq. mi.									

## DIVISION XIV.—SOUTH-WESTERN COUNTIES.

LANARK. (Area, 881 sq. mi.)

<b>1.—TWEED, UPPER—Left Bank Tributaries. 20 sq. mi.</b>								
D Biggar	J. Eunson, Esq.	8	1	0	691	1021	40·18	251 192
<b>2.—ALMOND. 14 sq. mi.</b>								
<b>3.—FORTH—Right Bank Tributaries. 9 sq. mi.</b>								
M Airdrie (Forrestburn Reservoir)	A. Simpson, Esq.	5	0	6	722	1141	44·90	.. ..
<b>4.—CLYDE—Right Bank Tributaries. 378 sq. mi.</b>								
M Coulter Reservoir	No. 1. W. Ross, Esq., C.E.	11	1	0	1175	1545	60·84	.. ..
Lamington (Cowgill Reservoir)	J. Chisholm, Esq., C.E.	5	1	0	970	1273	50·12	.. ..
M Biggar (Shieldhill)	Miss Dunlop	5	1	2	850	983	38·72	.. ..
D Biggar (Shieldhill)	Miss Dunlop	5	on	roof	850	822	32·36	270 175
D Cleghorn Gardens	Mrs. Elliott Lockhart	5	0	6	720	1074	42·30	.. 207
Carlisle (Coldstream Reservoir)	W. Ross, Esq., C.E.	11	1	0	800	1058	41·65	.. ..
Wishaw (Orchardlea)	T. Swinnerton, Esq.	6	1	6	450	987	38·87	.. ..
Glasgow (Tollcross Park)	E. Matthews, Esq.	5	0	6	85	1098	43·23	243 196
Glasgow Green	E. Matthews, Esq.	5	0	6	35	1042	41·02	234 189
Glasgow (Alexandra Park)	E. Matthews, Esq.	5	0	6	141	1059	41·71	252 193
Glasgow (Botanic Gardens)	E. Matthews, Esq.	5	0	6	110	1040	40·94	232 187
Glasgow (Kelvingrove Park)	E. Matthews, Esq.	5	0	6	48	1023	40·28	.. 187
Glasgow (Victoria Park)	E. Matthews, Esq.	5	0	6	30	1107	43·58	257 193
Glasgow (Ruchill Park)	E. Matthews, Esq.	5	0	6	222	1070	42·12	232 186
Glasgow (Springburn Park)	E. Matthews, Esq.	5	0	6	352	1134	44·64	259 190
Clarkston (Roughrigg Res.)	J. Chisholm, Esq., C.E.	5	1	0	661	1175	46·26	.. ..
D Airdrie (Broomknoll Street)	J. Chisholm, Esq., C.E.	5	1	0	402	1131	44·54	247 185
D Caldercruix (Hillend Reservoir)	Mr. W. A. Ritchie	5	3	6	620	1199	47·21	236 192
D Gartcosh (Gartloch Hospital)	Mr. James McEwen	5	1	1	291	1198	47·15	262 205

## DIVISION XIV.—SOUTH-WESTERN COUNTIES—(con.).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain.		Days with ·01 in. or more.	Days with ·04 in. or more.	
		Diam.	Height Ground	above Sea Level.	1923				
LANARK—(con.).		in	ft.	in.	ft.	mm.	in.		
<b>5.—CLYDE—Left Bank Tributaries. 448 sq. mi.</b>									
d Leadhills .....	J. McFarlane, Esq. ....	5	1	1	1310	2225	87·58	256	222
Strathaven (Glengavel Res.) ..	J. McMillan, Esq., C.E. ....	5	1	0	880	1562	61·48	260	222
d Strathaven (Dungavel) .....	A. K. Foulis, Esq. ....	5	1	0	789	1618	63·69	280	232
Strathaven (Dunside Res.) .....	J. McMillan, Esq., C.E. ....	5	0	10	1010	1545	60·83	222	204
d Strathaven (Kype Reservoir) ..	W. H. Purdie, Esq., C.E. ....	11	3	0	941	1459	57·45	...	...
d Coalburn (Acretophead) .....	W. G. Gemmill, Esq. ....	5	0	10	729	1255	49·41	255	219
Lesmahagow (Auchtyfardle) ...	Major T. E. Lander .....	5	1	0	578	1086	42·75	...	...
d Strathaven (East Overton Ho.)	H. Lee Dykes, Esq. ....	5	1	0	700	1392	54·80	236	216
d Stonehouse Sanatorium .....	James Watson, Esq. ....	5	1	0	526	1198	47·17	242	210
Stonehouse (Glassford Filters) ..	J. McMillan, Esq., C.E. ....	5	0	9	775	1336	52·60	250	209
d Hamilton W. W. (Townhill) ...	W. H. Purdie, Esq., C.E. ....	7	1	0	436	1119	44·05	...	213
d Hamilton (St. James's Manse) ..	Rev. J. A. Lees .....	5	1	0	200	1049	41·32	235	188
d Busby (Thornton Hall) .....	A. H. Bishop, Esq. ....	5	1	0	441	1215	47·84	252	193
d Carmunnock (Carnbooth) .....	R. Robertson, Esq., C.E. ....	5	1	0	365	1209	47·60	267	206
Cambuslang (Greenlees Filters) ..	J. McMillan, Esq., C.E. ....	8	1	0	322	1211	47·66	252	191
Glasgow (Bellahouston Park) ..	F. Matthews, Esq. ....	5	0	6	160	1122	44·16	250	202
Glasgow (Elder Park) .....	E. Matthews, Esq. ....	5	0	6	40	1144	45·04	237	198
<b>6.—IRVINE. 2 sq. mi.</b>									
<b>7.—AYR. 1 sq. mi.</b>									
<b>8.—NITH. 2 sq. mi.</b>									
<b>9.—ANNAN. 7 sq. mi.</b>									
AYR. (Area, 1135 sq. mi.)									
<b>1.—CLYDE—Left Bank Tributaries. 20 sq. mi.</b>									
d Glengarnock (Chemical Works)	A. Shanks, Esq. ....	8	1	0	110	1787	70·36	257	220
<b>2.—FIRTH OF CLYDE. 60 sq. mi.</b>									
d Stevenston (Greenhead Filters)	Gilbert Christie, Esq., C.E. ....	5	1	0	186	1226	48·28	250	210
d Skelmorlie (West Park) .....	J. Wilkinson, Esq. ....	5	1	6	150	1657	65·24	247	219
Shaws W.W. (Kelly Dam) .....	J. Macalister, Esq., C.E. ....	6	1	0	640	1938	76·30	...	...
Shaws W.W. (Knockencorsan) ..	J. Macalister, Esq., C.E. ....	6	1	0	1040	1854	73·00	...	...
<b>3.—IRVINE &amp; C. 283 sq. mi.</b>									
d Irvine (Gables) .....	H. W. Aitken, Esq. ....	5	1	0	12	1158	45·59	243	188
d Kilmarnock (Agricultural Coll.)	Prof. R. A. Berry .....	8	1	2	80	1203	47·37	240	193
Kilmarnock (North Craig Res.) ..	Wm. Dunbar, Esq., C.E. ....	12	1	0	319	1311	51·60	...	...
d Dalry (Blair Gardens) .....	Mr. J. Fairley .....	5	1	0	155	1427	56·19	238	215
d Dalry (Munnoch Reservoir) .....	Gilbert Christie, Esq., C.E. ....	5	1	0	325	1541	60·67	248	210
d Dalry (Caaf Reservoir) .....	Gilbert Christie, Esq., C.E. ....	5	1	3	515	1592	62·66	248	207
d Dalry W. W. (Filters) .....	Mr. W. Wightman .....	5	1	0	320	1371	53·99	248	196
d Dalry W. W. (Thirdpart) .....	Mr. W. Wightman .....	5	1	0	560	1593	62·72	...	...
d Dalry (Campbell Reservoir) ..	James Lee, Esq., C.E. ....	12	1	6	611	1889	74·35	...	...
Beith (Filter Station) .....	W. C. Dale, Esq. ....	5	6	0	124	1453	57·21	237	202
<b>4.—AYR. 222 sq. mi.</b>									
d Ayr Cemetery .....	J. Young, Esq., C.E. ....	5	1	0	40	1062	41·80	231	190
d Muirkirk (Kannshill) .....	Dugald Baird, Esq. ....	5	2	0	750	1497	58·93	266	216
<b>5.—DOON. 119 sq. mi.</b>									
Loch Finlas .....	J. Young, Esq., C.E. ....	5	1	0	849	1842	72·52	...	...
d Maybole (Knockdon Farm) ..	T. Cross, Esq. ....	5	1	6	352	1245	49·01	...	...
d Patna (Kerse Filters) .....	W. Gray, Esq., C.E. ....	11	1	0	743	1512	59·52	270	226
d Ayr (Doonholm) .....	Major N. Kennedy .....	5	1	0	90	1196	47·07	236	196
<b>6.—CULZEAN BAY &amp; C. 32 sq. mi.</b>									
d Turnberry (Hotel) .....	J. H. Thomas, Esq. ....	5	1	0	97	954	37·55	212	169
Turnberry Lighthouse .....	Board of Northern Lights ..	...	...	...	...	1067	42·02	218	187
d Maybole (Culzean Castle Gdns)	Mr. A. T. Harrison .....	8	2	10	138	1179	46·41	214	177



## DIVISION XIV.—SOUTH-WESTERN COUNTIES—(con.).

STATIONS.	AUTHORITIES.	Rain Gauge.				Depth of Rain.		Days with ·01 in. or more.	Days with ·04 in. or more.
		Diam.	Height Ground	above Sea Level.		1923			
AYR—(con.).		in.	ft.	in.	ft.	mm.	in.		
7.—GIRVAN. 105 sq. mi.									
Girvan (Glendoune Gardens)...	Mr. J. Simons .....	5	1	0	100	1397	55·02	204	..
d Girvan (Sunnyside, Golf Course)	D. Macdonald, Esq. ....	5	1	0	27	1189	46·82	224	189
Loch Bradan .....	M. S. Brodie, Esq., C.E. ...	11	1	0	991	1799	70·82	..	..
8.—STINCHAR & C. 155 sq. mi.									
d Colmonell (Knockdolian) .....	Mr. A. Ogg .....	5	1	0	170	1525	60·03	238	198
d Girvan (Pinnmore) .....	W. McConnell, Esq. ....	5	0	5	207	1662	65·45	272	223
9.—LOCH RYAN. 12 sq. mi.									
10.—LUCE BAY. 15 sq. mi.									
d Ballantrae (Lagafater Lodge) ..	Cedric R. Boulton, Esq. ....	5	0	11	792	2187	86·11	289	251
11.—GREE. 40 sq. mi.									
12.—DEE. 9 sq. mi.									
13.—NITH. 62 sq. mi.									
d Glen Afton (Ayr Sanator'm) ...	Dr. E. E. Prest .....	5	1	0	850	1669	65·69	253	215
d New Cumnock (Power Station)	James Jack, Esq. ....	5	1	0	764	1812	71·34	250	206
14.—INSULAR. 1 sq. mi.									
Ailsa Craig .....	Board of Northern Lights	3	1	0	27	725	28·55	225	192
RENFREW (Area, 241 sq. mi.)									
1.—CLYDE—Right Bank Tributaries. 3 sq. mi.									
2.—CLYDE—Left Bank Tributaries. 194 sq. mi.									
Gorbals Dist. W.W. (Nether Cairn) ..	J. R. Sutherland, Esq., C.E. 12	0	5	700	1655	65·15	..	..	..
Gorbals Dist. W.W. (Middleton) ..	J. R. Sutherland, Esq., C.E. 12	0	5	550	1454	57·25	..	..	..
Gorbals Dist. W.W. (Ryat Lynn) ..	J. R. Sutherland, Esq., C.E. 8	0	5	310	1412	55·60	..	..	..
Gorbals Dist. W.W. (Waulk Glen) ..	J. R. Sutherland, Esq., C.E. 12	0	5	280	1383	54·45	..	..	..
Paisley W.W. (Muirhead) .....	James Lee, Esq., C.E. ....	12	1	0	482	1730	68·11	..	..
Paisley W.W. (Springside) .....	James Lee, Esq., C.E. ....	12	1	0	532	1881	74·06	..	..
d Lochwinnoch (Garthland) .....	H. Macdowall Esq. ....	5	0	11	150	2067	81·39	264	231
Paisley W.W. (Back Thornley Muir) ..	James Lee, Esq., C.E. ....	12	1	0	646	1569	61·77	..	..
Paisley W.W. (Stanely) .....	James Lee, Esq., C.E. ....	12	1	0	190	1311	51·61	..	..
Howwood (Midtown House) ..	Andrew McNab, Esq. ....	5	1	6	231	1705	67·14	222	190
Pollokshaws (Rouken Glen) .....	E. Matthews, Esq. ....	5	0	6	156	1357	53·43	259	203
d Pollokshaws (Pollok House) ..	Sir J. Stirling Maxwell, Bt. 5	1	0	50	1080	42·53	211	184	..
d Glasgow (Queen's Park) .....	E. Matthews, Esq. ....	8	0	9	145	1063	41·85	236	194
Glasgow (Maxwell Park) .....	E. Matthews, Esq. ....	5	0	6	69	1018	40·07	230	181
d Kilbarchan (Milliken Park) ..	M. Douglas Anderson, Esq. 5	1	6	75	1412	55·58	235	211	..
d Kilbarchan (Glentyan) ..	(R.) R. H. Hunter, Esq. ....	8	3	9	285	1588	62·52	253	211
d Paisley (The Coats Observatory) ..	Observatory Committee ..	8	1	0	107	1247	49·09	244	189
d Houston Manse .....	Rev. George Muir .....	5	1	0	103	1355	53·33	247	191
Shaws W.W. (Duchall Moor) ..	J. Macalister, Esq., C.E. ...	6	1	0	1150	2078	81·80	..	..
Shaws W.W. (Creuch Hill) ..	J. Macalister, Esq., C.E. ...	6	1	0	1350	2273	89·50	..	..
Shaws W.W. (Green Water) ..	J. Macalister, Esq., C.E. ...	6	1	0	788	2268	89·30	..	..
d Renfrew Aerodrome .....	(+A) The Meteorological Office ..	8	1	0	37	1042	41·02	236	182
Kilmacolm W.W. ....	R. Blackwood, Esq. ....	5	1	0	600	2043	80·42	..	..
d Kilmacolm Village .....	R. Blackwood, Esq. ....	5	1	0	300	1601	63·04	243	212
Bishopton (Ingliston) .....	D. Cross, Esq. ....	5	1	0	195	1288	50·70	..	..
Bishopton (Dargavel) .....	Miss M. A. Maxwell .....	5	1	0	33	1276	50·22	..	..
d Bishopton (Formakin) .....	J. A. Holms, Esq. ....	5	0	9	..	1440	56·68	237	209
d Shaws W.W. (Gryfe Reservoir) ..	J. Macalister, Esq., C.E. ...	5	1	0	640	1987	78·25	266	220
d Shaws W.W. (Mansfield) .....	J. Macalister, Esq., C.E. ...	5	1	0	573	1999	78·69	266	221
Shaws W.W. (Darndaff Moor) ..	J. Macalister, Esq., C.E. ...	5	1	0	850	1962	77·26	..	..

## DIVISION XIV.—SOUTH-WESTERN COUNTIES—(con.).

STATIONS.	AUTHORITIES.	Rain Gauge.				Depth of Rain. 1923	Days with ·01 in. or more.	Days with ·04 in. or more.
		Diam.	Height Ground	above Sea Level.				
RENFREW—(con.).		in.	ft.	in.	ft.	mm.	in.	
3.—FIRTH OF CLYDE. 34 sq. mi.								
Shaws W.W. (Largs Road) . . . .	J. Macalister, Esq., C.E. . . .	5	1	0	910	1944	76·53	..
Inverkip (Daff Burn Reservoir) .	Alex. Duthie, Esq. . . . .	8	1	0	506	1845	72·63	..
M Langbank (East Bank Gardens) .	T. Cross, Esq. . . . .	5	2	6	250	1433	56·43	..
w Dougliehill Filters (Pt. Glas. W.W.)	James Murray, Esq. . . . .	8	1	6	540	1610	63·37	..
w Parkhill Filters (Pt. Glas. W.W.) .	James Murray, Esq. . . . .	8	1	6	275	1523	59·98	..
D Shaws W.W. (Compens. Res.) . . .	J. Macalister, Esq., C.E. . . .	5	1	0	600	2075	81·68	270
D Shaws W.W. (Loch Thom) . . . .	J. Macalister, Esq., C.E. . . .	5	1	0	643	2117	83·35	270
D Shaws W.W. (Shielhill) . . . . .	J. Macalister, Esq., C.E. . . .	6	1	0	962	2250	88·60	..
D Shaws W.W. (New Yett's Dam) . .	J. Macalister, Esq., C.E. . . .	5	1	0	800	1927	75·87	295
D Shaws W.W. (Spango Burn) . . .	J. Macalister, Esq., C.E. . . .	6	1	0	757	2060	81·10	..
D Shaws W.W. (Hole Glen) . . . . .	J. Macalister, Esq., C.E. . . .	5	1	0	603	2026	79·78	295
D Greenock (Prospect Hill) (. + A)	J. Macalister, Esq., C.E. . . .	5	1	0	200	1857	73·09	264
D Gourrock (Coves Reservoir) . . .	Alex. Duthie, Esq. . . . .	5	1	0	221	1585	62·39	228
4.—IRVINE. 10 sq. mi.								

## DIVISION XV.—WEST MIDLAND COUNTIES.

DUMBARTON. (Area, 270 sq. mi.).

**1.—FORTH—Right Bank Tributaries. 10 sq. mi.****2.—FIRTH OF CLYDE & COWAL. 52 sq. mi.**

D Cardross (Kilmaheew) . . . . .	Capt. Claud A. Allan . . . .	5	1	0	180	1363	53·65	250	205
D Helensburgh (Ferniegair) . . . .	J. N. Stirling, Esq., C.E. . . .	8	1	0	22	1582	62·26	269	218
D Helensburgh (Valve House) . . . .	J. N. Stirling, Esq., C.E. . . .	8	1	0	293	1671	65·79	271	222
D Rosneath House . . . . .	W. Rankine, Esq. . . . .	5	0	4	33	1469	57·84	270	217
D Garlochhead (Aikenshaw) . . . . .	W. S. Turnbull, Esq. . . . .	6	1	0	32	1707	67·20	..	..
D Arrochar (Glen Loin) . . . . .	Mrs. Little . . . . .	5	1	0	17	2865	112·80	280	247

**3.—CLYDE—Leven. 149 sq. mi.**

M Kilpatrick H. (Burncrooks Res.) .	3T. L. Rae, Esq., C.E. . . . .	5	1	0	959	1779	70·03	..	..
M Kilpatrick H. (Burncrooks Res.) .	2T. L. Rae, Esq., C.E. . . . .	5	1	0	920	1777	69·97	..	..
M Kilpatrick H. (Burncrooks Res.) .	1T. L. Rae, Esq., C.E. . . . .	5	1	0	835	1789	70·45	..	..
D Renton (Carman Filters) . . . . .	Mr. Chas. Brown . . . . .	8	4	0	292	1442	56·77	281	238
D Loch Lomond Park . . . . .	E. Matthews, Esq. . . . .	5	1	0	156	1449	57·04	265	259
D Glen Finlas Reservoir . . . . .	No. 7 George Beaton, Esq. . . .	12	1	6	820	2798	110·14	267	230
M Glen Finlas Reservoir . . . . .	No. 1 George Beaton, Esq. . . .	5	1	1	782	2175	85·65	..	..
M Glen Finlas Reservoir . . . . .	No. 2 George Beaton, Esq. . . .	5	1	6	1194	2107	82·94	..	..
M Glen Finlas Reservoir . . . . .	No. 3 George Beaton, Esq. . . .	5	1	5	1627	2423	95·40	..	..
M Glen Finlas Reservoir . . . . .	No. 4 George Beaton, Esq. . . .	5	2	0	2040	2502	98·49	..	..
M Glen Finlas Reservoir . . . . .	No. 5 George Beaton, Esq. . . .	5	0	9	1635	2063	81·24	..	..
M Glen Finlas Reservoir . . . . .	No. 6 George Beaton, Esq. . . .	5	1	0	1172	1987	78·25	..	..

**4.—CLYDE—Right Bank Tributaries. 59 sq. mi.**

D Drumchapel (Wasdale) . . . . .	F. C. Thomson Esq. . . . .	5	1	0	49	1148	45·21	263	185
D Milngavie (Dougalston) . . . . .	Major R. M. Ker . . . . .	5	1	0	150	1355	53·36	244	204
D Duntocher (Cochno Filters) . . . .	T. L. Rae, Esq., C.E. . . . .	5	1	0	400	1392	54·79	233	209
D Kilpatrick Hills (Greenside Res.) .	T. L. Rae, Esq., C.E. . . . .	5	1	0	876	1517	59·74	..	..
D Kilpatrick Hills (Loch Cochno) . .	T. L. Rae, Esq., C.E. . . . .	5	1	0	909	1564	61·56	..	..
D Kilpatrick Hills (Jaw Reservoir) .	T. L. Rae, Esq., C.E. . . . .	5	1	0	912	1676	65·99	..	..

STIRLING. (Area, 463 sq. mi.).

**1.—FORTH—Right Bank Tributaries. 263 sq. mi.**

d Linlithgow (Muiravonside Ho) . .	late Mr. C. Leeder . . . . .	5	0	5	175	1013	39·89	..	..
D Polmont (Vellore) . . . . .	R. M. W. Brown, Esq. . . . .	8	0	8	320	886	34·89	232	176
D Falkirk (Inglewood, Laurieston) .	W. Ballantine, Esq. . . . .	5	1	3	133	990	38·97	216	179
D Falkirk (Westbank) . . . . .	Garden. A. Nimmo, Esq. . . . .	5	1	0	75	993	39·10	212	179
M Falkirk (Westbank) . . . . .	Lawn. A. Nimmo, Esq. . . . .	5	1	0	105	980	38·59	..	..
D Falkirk (Arnotdale) . . . . .	W. Gibson, Esq. . . . .	5	1	0	107	1062	41·81	222	178

## DIVISION XV.—WEST MIDLAND COUNTIES—(con.).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain. 1923	Days with or more.	Days with or more.		
		Diam.	Height Ground	above Sea Level.					
STIRLING—(con.).		in.	ft.	in.	ft.	mm.	in.		
1.—FORTH.—Right Bank Tributaries—(con.).									
Falkirk (Kerse) . . . . .	George Smith, Esq. . . . .	8	1	0	18	843	33·20	..	..
Little Denny Reservoir . . . . .	C. Massie, Esq. . . . .	8	1	0	326	1332	52·44	..	..
Little Denny Filters . . . . .	C. Massie, Esq. . . . .	8	1	0	268	1273	50·12	..	..
Kilsyth (Faughlin Res.) . . . . .	C. Massie, Esq. . . . .	8	1	0	707	1624	63·95	..	..
Denny (Buckieburn Reservoir) . . . . .	C. Massie, Esq. . . . .	8	1	0	825	1477	58·15	..	..
Denny (Buckieburn Filters) . . . . .	C. Massie, Esq. . . . .	8	1	0	760	1394	54·88	..	..
d Stirling (North Third Res.) . . . . .	D. A. Donald, Esq., C.E. . . . .	8	1	0	560	1397	54·99	245	208
d Stirling (Touch Res.) . . . . .	No. 3 A. H. Goudie, Esq. . . . .	8	1	0	759	1457	57·36	244	196
d Stirling (Touch Res.) . . . . .	No. 2 A. H. Goudie, Esq. . . . .	8	1	0	707	1431	56·36	244	195
d Stirling (Touch Res.) . . . . .	No. 1A. H. Goudie, Esq. . . . .	8	1	0	455	1490	58·65	244	198
d Stirling (Sauchie House) . . . . .	J. Fyfe, Esq., C.S.I. . . . .	5	1	0	151	961	37·82	201	161
Stirling (Victoria Place) . . . . .	Dr. R. Kidston, F.R.S. . . . .	5	2	10	100	967	38·09	..	..
Gargunnoch House . . . . .	C. Stirling, Esq. . . . .	5	1	3	85	1227	48·29	..	..
d Kippen (Arngomery) . . . . .	Mr. P. McCowan . . . . .	5	3	6	150	1392	54·80	226	199
Duchray Valley (Ben Lomond) . . . . .	J. R. Sutherland, Esq., C.E. . . . .	8	0	6	1800	2808	110·55	..	..
d Duchray Valley (Glen Dhu) . . . . .	J. R. Sutherland, Esq., C.E. . . . .	8	1	0	500	2418	95·20	..	221
d Duchray Valley (Comer) . . . . .	J. R. Sutherland, Esq., C.E. . . . .	8	1	0	600	2572	101·25	..	221
Duchray Valley (Achaidd Burn) . . . . .	J. R. Sutherland, Esq., C.E. . . . .	8	1	0	1200	3071	120·90	..	..
Duchray Val. (Hd. of Main Stream) . . . . .	J. R. Sutherland, Esq., C.E. . . . .	8	1	0	950	2871	113·05	..	..
2.—FORTH—Teith. 5 sq. mi.									
d Stronachlachlar (Invergyle) . . . . .	J. R. Sutherland, Esq., C.E. . . . .	8	1	0	376	2482	97·70	..	239
3.—FORTH—Left Bank Tributaries. 15 sq. mi.									
Bridge of Allan (The Lea) . . . . .	Laurence Pullar, Esq. . . . .	5	1	0	50	1054	41·49	248	183
4.—CLYDE—Leven. 128 sq. mi.									
Strathblane (Blane field) . . . . .	J. R. Sutherland, Esq., C.E. . . . .	8	1	0	250	1529	60·20	..	..
d Killearn (Achnagowan) . . . . .	Miss A. L. Guthrie-Smith . . . . .	5	0	10	332	1616	63·61	228	206
Loch Arklet (Corrieichon) . . . . .	J. R. Sutherland, Esq., C.E. . . . .	8	0	6	870	2591	102·00	..	..
Loch Arklet (Corriearklet) . . . . .	J. R. Sutherland, Esq., C.E. . . . .	8	0	6	950	2708	106·60	..	..
5.—CLYDE—Right Bank Tributaries. 52 sq. mi.									
Strathblane (Mugdock Res.) . . . . .	J. R. Sutherland, Esq., C.E. . . . .	8	0	6	320	1433	56·40	..	..
d Kilsyth (Innsbridge) . . . . .	J. I. Little, Esq. . . . .	5	11	0	202	1469	57·82	234	195
BUTE. (Area, 218 sq. mi.)									
1.—ISLE OF BUTE. 50 sq. mi.									
d Rothesay (Arden Craig) . . . . .	Sir John Reid . . . . .	5	1	0	201	1686	66·36	288	242
Port Bannatyne (Ettrickdale) . . . . .	Lt.-Col. M. R. Gray Buchanan . . . . .	5	1	0	190	1459	57·46	276	220
2.—GUMBRAES. 4 sq. mi.									
d Millport (Marine Biog. Stat.) . . . . .	R. Elmhirst, Esq. . . . .	5	1	0	16	1338	52·69	268	208
3.—ARRAN. 164 sq. mi.									
Pladda . . . . .	Board of Northern Lights . . . . .	5	1	9	35	1347	53·02	214	206
Holy Island (Pillar Rock) . . . . .	Board of Northern Lights . . . . .	3	0	3	46	1207	47·54	..	..
d Shiskine (Shedog) . . . . .	Dr. T. Rutherford . . . . .	5	1	0	107	1524	60·00	246	207
d Dougarie Lodge . . . . .	David Reside, Esq. . . . .	5	1	0	10	1483	58·39	261	215
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. Craig Sellar, Esq. . . . .	5	1	0	48	2557	100·68	289	262
d Morvern (Drimnin) . . . . .	Mrs. Gordon . . . . .	5	1	0	225	1910	75·20	294	252
d Loch Sunart (Glenborrodale) . . . . .	T. J. A. Armstrong, Esq. . . . .	5	1	0	88	2160	85·05	..	..
Ardnamurchan . . . . .	Board of Northern Lights . . . . .	8	4	3	180	1080	42·52	186	176
d Acharacle (Shielbridge) . . . . .	T. J. A. Armstrong, Esq. . . . .	8	1	0	48	1999	78·72	285	262

## DIVISION XV.—WEST MIDLAND COUNTIES—(con.).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain.		Days with ·01 in. or more.	Days with ·04 in. or more.	
		Diam.	Height Ground	above Sea Level.	1923				
ARGYLL—(con.).		in.	ft.	in.	ft.	mm.	in.		
3.—LOCH LINNHE—Right Bank Tributaries. 139 sq. mi.									
▷ Morvern (Kingairloch)	G. Herbert Strutt, Esq. . . . .	5	1	0	40	3069	120·84	269	247
Corran Lighthouse	Board of Northern Lights. . . . .	3	1	6	38	2531	99·65	257	246
▷ Ardgour House	Capt. Maclean of Ardgour . . . . .	5	0	10	60	3059	120·43	291	258
4.—LOCH LINNHE—Left Bank Tributaries. 165 sq. mi.									
▷ Duror (Achara)	W. D. Stewart, Esq. . . . .	5	1	2	45	2127	83·73	264	238
Duror (The Rectory)	Rev. Canon E. J. Benwell . . . . .	5	1	0	120	2207	86·87	265	241
Glenleven (Blackwater House)	4 British Aluminium Co. Ltd. . . . .	8	1	0	1089	2620	103·16	..	..
▷ Glenleven (Blackwater Dam, S.)	2 British Aluminium Co. Ltd. . . . .	8	1	0	1072	2691	105·94	304	266
▷ Glenleven (Kinlochleven) No. 1	British Aluminium Co. Ltd. . . . .	8	1	0	140	2886	113·61	282	263
5.—LOCH ETIVE. 197 sq. mi.									
▷ Glen Etive	W. D. Fordyce, Esq. . . . .	5	1	0	200	2347	92·39	..	..
6.—LOCH ETIVE—Loch Awe. 319 sq. mi.									
▷ Loch Awe (Ford)	H. Cameron, Esq. . . . .	8	1	0	149	2347	92·40	274	258
▷ Loch Awe (Dalavich)	H. Cameron, Esq. . . . .	8	1	0	260	2895	113·97	285	250
▷ Dalmally (Manse of Glenorchy)	Rev. Farquhar MacRae . . . . .	5	1	0	150	2653	104·46	271	242
7.—FIRTH OF LORNE. 112 sq. mi.									
▷ Kilmelfort (Arduaine)	J. A. Campbell, Esq. . . . .	5	0	10	23	1959	77·11	267	249
▷ Kilmelfort (Ardmaddy Castle)	The Marchioness of Breadalbane . . . . .	..	..	..	..	2060	81·09	250	238
Oban (Gleann-a-Bhearraidh Res.)	D. Galloway, Esq. . . . .	8	1	6	370	1838	72·37	..	..
▷ Oban	D. Galloway, Esq. . . . .	8	1	0	21	1668	65·66	274	227
8.—SOUND OF JURA. 163 sq. mi.									
▷ Lochgilphead (Poltalloch)	Mr. D. S. Melville. . . . .		1	2	135	1913	75·33	286	246
9.—KINTYRE, WEST. 146 sq. mi.									
Mull of Kintyre	Board of Northern Lights. . . . .	5	1	0	267	1174	46·21	222	206
▷ Muasdale (Killeen Manse)	Rev. D. J. Macdonald . . . . .	5	1	0	10	1302	51·27	271	209
Largie Castle	Mrs. Moreton Macdonald . . . . .	5	1	1	160	1536	60·47	263	213
▷ Carse	J. Birkmyre, Esq. . . . .	6	1	6	20	1404	55·28	308	253
10.—KINTYRE, EAST. 177 sq. mi.									
▷ Campbeltown (South Park)	J. A. Gardiner, Esq. . . . .	8	0	10	20	1807	71·15	270	216
Campbeltown (Devaar)	Board of Northern Lights. . . . .	8	3	11	65	1511	59·50	251	207
▷ Carradale (Torrisdale Castle)	Major W. Macalister Hall. . . . .	5	1	0	84	2132	83·94	277	241
▷ Skipness Castle	R. F. Graham, Esq. . . . .	5	1	1	14	1542	60·70	263	220
11.—LOCH FYNE. 264 sq. mi.									
Otter Ferry (Ballimore)	Lt. Col. MacRae-Gilstrap . . . . .	5	0	7	60	1783	70·18	..	..
▷ Ardrishaig (Canal Office)	E. A. Bly, Esq. . . . .	5	1	0	48	2073	81·60	259	229
▷ Crarae (Kennels)	late H. M. Rae, Esq. . . . .	5	1	0	20	2581	101·61	..	..
▷ Strachur Park	Lady G. Campbell. . . . .	5	1	0	25	2244	88·35	267	242
▷ Loch Fyne (Brenchoillie)	A. E. Lewis, Esq. . . . .	5	1	0	240	2289	90·11	..	..
▷ Inveraray Castle Gardens	A. E. Lewis, Esq. . . . .	5	1	0	40	2454	96·62	277	260
▷ Ardkinglas	Mr. J. Payne . . . . .	8	1	6	37	2406	94·74	258	251
12.—FIRTH OF CLYDE & COWAL. 242 sq. mi.									
▷ Toward (Knockdow Gardens)	Sir Norman Lamont, Bt. . . . .	5	1	6	101	1755	69·09	259	231
▷ Innellan (Lilybank)	P. H. Coats, Esq. . . . .	5	1	6	25	1867	73·52	263	229
▷ Tighnabruaich (Wellpark)	R. Paton, Esq. . . . .	12	0	7	50	1916	75·45	249	232
Toward (Inverchaolain)	Sir Norman Lamont, Bt. . . . .	5	1	0	..	2165	85·22	256	235
▷ Dunoon (Reservoir)	W. Rodger, Esq., C.E. . . . .	12	3	6	245	2668	105·05	241	221
▷ Dunoon (Redhurst)	Dr. J. Banks . . . . .	5	1	0	60	2528	99·52	254	234
▷ Holy Loch (Ardnadam)	Rev. J. Cairns Mitchell. . . . .	5	1	0	40	2317	91·22	255	228
▷ Loch Eck (Benmore)	Mr. R. R. Greenlaw . . . . .	5	1	3	40	2871	113·05	254	248
Lochgailhead (Ardgoil)	E. Matthews, Esq. . . . .	5	0	6	20	2805	110·44	272	241
▷ Lochgailhead (Nuthill)	Mr. D. Marquis . . . . .	5	1	0	15	2450	96·47	284	247

## DIVISION XV.—WEST MIDLAND COUNTIES—(con.).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain.		Days with .01 in. or more.	Days with .04 in. or more.	
		Diam.	Height Ground	above Sea Level.	1923				
ARGYLL—(con.).		in.	ft.	in.	ft.	mm.	in.		
13.—CLYDE—Leven. 4 sq. mi.									
14.—INSULAR. 900 sq. mi.									
D Islay (Ardbeg)	Colin E. Hay, Esq.	5	7	0	46	1536	60.48	286	236
Islay (Rhinn)	Board of Northern Lights..	7	3	6	150	1144	45.03	285	219
Islay (Lochindaul)	Board of Northern Lights..	3	0	6	52	1473	57.99	236	229
Islay (McArthur's Head)	Board of Northern Lights..	3	0	4	128	1921	75.62	..	..
D Islay (Eallabus)	James MacKillop, Esq.	5	1	0	68	1926	75.82	299	259
Islay (Rhuvaal)	Board of Northern Lights..	3	1	3	147	1404	55.26	229	208
D Jura (Ardfin)	Colin Campbell, Esq.	5	1	0	160	1810	71.27	275	239
Fladda Lighthouse	Board of Northern Lights..	3	1	0	42	1291	50.81	254	238
Lismore (Mousedale)	Board of Northern Lights..	7	3	10	105	1223	48.16	209	190
D Eriska	Mr. J. M. Webster	5	1	6	30	1917	75.46	263	243
D Mull (Iona Manse)	Rev. A. Macmillan	5	1	2	45	1553	61.13	259	242
D Mull (Bunessan)	Duncan Cameron, Esq.	5	1	0	50	1555	61.20	263	241
Mull (Benmore)	Mr. J. Macphail	5	2	0	2800	4041	159.10	..	..
D Mull (Glencannel)	Duncan Cameron, Esq.	5	1	3	250	3774	148.59	295	270
D Mull (Ulva)	F. W. Clark, Esq.	5	1	0	30	1948	76.68	290	244
D Mull (Knock)	Duncan Cameron, Esq.	5	1	3	50	2582	101.67	275	263
D Mull (Gruline)	J. W. Melles, Esq.	8	1	0	101	2434	95.84	295	253
Mull (Glengorm Castle)	Miss M. Lithgow	5	1	0	365	1693	66.66	..	..
Mull, Sound of	Board of Northern Lights..	3	1	4	55	2144	84.40	259	232
D Tiree (Cornaigmore)	A. J. Ross, Esq.	5	1	0	25	1230	48.42	252	216

## DIVISION XVI.—EAST MIDLAND COUNTIES.

## CLACKMANNAN. (Area 55 sq. mi.)

<b>1.—FORTH, LOWER—Left Bank Tributaries. 55 sq. mi.</b>								
d Alloa House Gardens .....	Earl of Mar & Kellie, K.T. ....	5	3	0	785	30.89	..	..
Alloa W.W. (Gartmorn Res.) ..	Andrew Mackie, Esq., C.E. ....	11	1	0	865	34.05	..	..
D Tillicoultry (Westbourne) .....	Mrs. Willison .....	5	1	0	993	39.10	217	166
D Tillicoultry Public School .....	W. D. Robinson, Esq. ....	5	1	0	995	39.17	232	173
D Dollar (Weilhall, Dollarbeg) ..	James Bleloch, Esq. ....	5	0	9	1013	39.87	236	170
M Glendevon .....	No. 2 H. F. Hodge, Esq., C.E. ....	8	1	0	2140	84.26	..	..
M Glendevon .....	No. 8 H. F. Hodge, Esq., C.E. ....	8	1	0	1409	55.49	..	..
M Glendevon .....	No. 9 H. F. Hodge, Esq., C.E. ....	8	1	0	1673	65.88	..	..
D Glendevon (Backhill) .....	H. F. Hodge, Esq., C.E. ....	8	1	0	1699	66.90	263	214

## KINROSS. (Area, 87 sq. mi.)

<b>1.—FORTH, LOWER—Left Bank Tributaries. 15 sq. mi.</b>								
Dollar (Blairingone Manse) ...	Rev. J. F. Cameron .....	5	1	6	1111	43.76	242	181
<b>2.—LEVEN &amp; C. 67 sq. mi.</b>								
M Kelty (Blairadam Wood) .....	C. A. Alexander, Esq. ....	5	1	0	881	34.68	..	..
D Loch Leven Sluice .....	Mr. J. Thomson .....	8	0	9	871	34.29	188	154
D Milnathort (Ledlanet) .....	Sir J. C. Calder, C.B.E. ....	5	1	0	1206	47.47	224	177

**3.—EDEN. 2 sq. mi.****4.—TAY—Earn. 3 sq. mi.**

## FIFE. (Area, 505 sq. mi.)

<b>1.—FORTH, LOWER—Left Bank Tributaries. 66 sq. mi.</b>								
D Rosyth (H. M. Dockyard) .....	The Supt. Engineer .....	8	1	0	654	25.76	197	132
D Kincardine (Tulliallan) .....	J. C. Wilson, Esq. ....	5	1	0	866	34.08	178	157
Culross (Luscar House) .....	No. 1 Lt.-Col. A. Mitchell .....	5	0	10	856	33.71	..	..
Carnock (Craigluscar Res.) .....	R. Muir Morton, Esq. ....	12	0	4	988	38.89	..	..

## DIVISION XVI.—EAST MIDLAND COUNTIES—(con.).

STATIONS.	AUTHORITIES.	Rain Gauge.				Depth of Rain.		Days with ·01 in. or more.	Days with ·04 in. or more.
		Diam.	Height Ground	above Sea Level.		1923			
FIFE—(con.).		in.	ft.	in.	ft.	mm.	in.		
<b>2.—LEVEN &amp; C. 208 sq. mi.</b>									
Inverkeithing (Pitreavie Castle)	R. Richardson, Esq.....	5	0	9	150	711	27·99	..	..
Dunfermline (Fordell House)	.. Earl of Buckinghamshire..	5	1	0	250	798	31·41	..	..
Kirkcaldy (Munro Street)	.... F. Braid, Esq. ....	5	1	0	67	719	28·32	200	142
Cowdenbeath (Stenhouse St.)	.. C. A. Alexander, Esq. ....	5	1	0	474	898	35·35	..	..
Cleish Hills (Deanhead Farm)	.. C. A. Alexander, Esq. ....	5	1	0	725	914	35·98	196	149
Cleish Hills (Craiggaferal)	.... C. A. Alexander, Esq. ....	5	1	0	760	1044	41·10	..	..
Cleish Hills (Roscobie Res.)	.... C. A. Alexander, Esq. ....	5	1	0	660	1012	39·86	..	..
Cleish Hills (Lochglow Res.)	.... C. A. Alexander, Esq. ....	5	1	0	900	748	29·45?	..	..
Leven (The Rectory)	..... Rev. F. C. Newbery ....	5	1	0	25	656	25·82	176	148
Leslie (Lothrie Reservoir)	..... R. Ritchie, Esq. ....	5	0	6	702	944	37·15	247	170
Elie (The Castle)	..... Miss E. E. Scott Moncrieff	5	0	5	9	568	22·36	194	138
Colinsburgh (Cairnie House)	.... Maj. R. A. Anstruther, D.S.O.	5	3	6	125	633	24·90	205	138
Colinsburgh (Balcarres)	..... Mr. W. H. Adams ....	5	1	0	300	631	24·84	202	151
Carnbee (Ovenstone W.W.)	.... A. P. Watson, Esq.....	5	1	0	168	601	23·67	..	..
<b>3.—EDEN &amp; C. 205 sq. mi.</b>									
Ceres (Castlebank)	..... Mr. Alex. Smith ....	5	2	0	280	767	30·19	169	138
Cameron Water Works	..... W. Watson, Esq., C.E.....	5	1	0	478	736	28·96	188	145
Cupar (Pitlair)	..... W. N. Walker, Esq. ....	8	1	0	126	702	27·64	179	145
Cupar (Rankeillour)	..... Mr. J. McLaren ....	5	1	0	240	653	25·71?	..	..
Cupar (Fife & Kinross Asylum)	.. Dr. J. H. Skeen ....	5	1	0	210	724	28·52	195	141
St. Andrews (Water Works)	.... W. Watson, Esq., C.E.....	5	1	0	217	692	27·23	208	142
St. Andrews (Queen's Gardens)	Miss I. J. R. Macadam ....	5	1	0	55	674	26·52	192	131
St. Andrews	..... W. Watson, Esq., C.E.....	5	1	0	20	659	25·96	205	133
Kilmany (Lochmalony)	..... W. Marshall, Esq. ....	5	0	9	260	761	29·96	..	..
Leuchars (Seaplane Stn.) (+A)	The Meteorological Office ..	8	1	0	40	636	25·04	195	129
<b>4.—FIRTH OF TAY. 25 sq. mi.</b>									
Newport (Tayfield)	..... W. Berry, Esq. ....	5	0	7	100	747	29·40	172	144
Tayport (Lighthouse)	..... J. H. Thompson, Esq., C.E.	5	1	0	27	727	28·62	208	137
<b>5.—TAY—Earn. 1 sq. mi.</b>									
<b>6.—INSULAR.</b>									
Inchkeith	..... The Meteorological Office..	8	1	0	190	507	19·99	180	116
Isle of May	..... Board of Northern Lights..	5	4	0	180	379	14·94?	..	..
PERTH. (Area, 2535 sq. mi.)									
<b>1.—FORTH—Right Bank Tributaries. 17 sq. mi.</b>									
Gartmore House Gardens	.... Mr. H. B. Matheson ....	5	1	0	160	1521	59·88	253	200
Loch Dhu	..... J. R. Sutherland, Esq., C.E.	8	0	6	325	2217	87·30	..	228
<b>2.—FORTH, UPPER—Left Bank Tributaries. 84 sq. mi.</b>									
Aberfoyle (The Inn)	..... J. R. Sutherland, Esq., C.E.	8	0	6	60	1575	62·00	..	212
Ledard	..... J. R. Sutherland, Esq., C.E.	8	0	6	1500	2017	79·40	..	..
<b>3.—FORTH—Teith. 221 sq. mi.</b>									
Loch Drunkie	..... J. R. Sutherland, Esq., C.E.	8	0	6	420	1793	70·60	..	..
Invertrossachs	..... Sir James R. Wilson, Bt...	5	1	0	350	1697	66·80	266	213
Ben Venue (Glasaholile)	..... J. R. Sutherland, Esq., C.E.	8	1	0	1150	2349	92·50	..	..
Loch Vennachar	..... J. R. Sutherland, Esq., C.E.	8	0	6	275	1561	61·45	..	206
Bridge of Turk	..... J. R. Sutherland, Esq., C.E.	8	0	6	275	1712	67·40	..	202
Loch Katrine (Tunnel Hill Top)	J. R. Sutherland, Esq., C.E.	8	0	6	830	2291	90·20	..	..
Ben Ledi	..... J. R. Sutherland, Esq., C.E.	8	0	6	1400	1849	72·80	..	..
Achnahard	..... J. R. Sutherland, Esq., C.E.	8	1	0	474	1855	73·05	..	208
Callander (Leny House)	..... Capt. M. Murray Buchanan	5	0	6	340	1537	60·50	..	..
Strone Bridge	..... J. R. Sutherland, Esq., C.E.	8	1	0	380	2157	84·90	..	..
Glen Meann	..... J. R. Sutherland, Esq., C.E.	8	1	0	800	2254	88·75	..	..
Glen Finglas	..... J. R. Sutherland, Esq., C.E.	8	1	0	1200	2367	93·20	..	..
Glengyle	..... J. R. Sutherland, Esq., C.E.	8	0	6	380	2713	106·80	..	234
Upper Glengyle	..... J. R. Sutherland, Esq., C.E.	8	1	0	750	2825	111·20	..	..
Allt a' Choin	..... J. R. Sutherland, Esq., C.E.	8	1	0	1250	2736	107·70	..	..
Balquhiddie (Blaircreach)	.... J. M. Fergusson, Esq. ....	5	1	0	460	2913	114·68	..	..
Balquhiddie (Stronvar)	..... J. Carnegie, Esq. ....	5	1	0	422	1836	72·27	..	..

## DIVISION XVI.—EAST MIDLAND COUNTIES—(con.).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain.		Days with ·01 in. or more.	Days with ·04 in. or more.	
		Diam.	Height Ground	above Sea Level.	1923				
PERTH—(con.).		in.	ft.	in.	ft.	mm.	in.		
4.—FORTH, LOWER—Left Bank Tributaries. 107 sq. mi.									
D Dunblane	W. L. Gibson, Esq., C.E.	5	1	0	250	1137	44·77	224	201
D Glendevon (Glenquey Res.)	No. 2 H. F. Hodge, Esq., C.E.	8	1	0	945	1633	64·28	181	175
D Glendevon (Tormaukin)	Mr. W. Phillips	5	1	6	770	1373	54·06	216	184
D Glendevon (Frandy)	H. F. Hodge, Esq., C.E.	8	1	0	911	1618	63·71	250	202
D Glendevon (Glensherup)	R. Muir Morton, Esq.	12	0	4	945	1690	66·54	..	..
M Glendevon	No. 1 H. F. Hodge, Esq., C.E.	8	1	0	1202	1543	60·75	..	..
M Glendevon	No. 10 H. F. Hodge, Esq., C.E.	8	1	0	1408	1319	51·93	..	..
5.—LEVEN. 1 sq. mi.									
6.—EDEN. 4 sq. mi.									
7.—TAY—Earn. 376 sq. mi.									
D Glencagles House	Mr. P. Douglas	8	1	0	447	1121	44·15	228	174
Upper Farg (Plains)	Messrs. Leslie & Reid, C.E.	8	1	0	900	823	32·42	..	..
Upper Farg (Main Bank)	Messrs. Leslie & Reid, C.E.	5	1	0	..	690	27·15	..	..
D Dunning (Kippen House)	Lady Wilson	5	1	0	450	1113	43·82	..	..
Auchterarder (Belhie)	Miss D. Cairns	5	0	10	100	787	30·97	..	157
Bridge of Earn (Ballendrick)	Capt. O. A. Taylor	5	0	9	50	788	31·01	200	139
D Lochearnhead (Edinchip)	Sir Malcolm MacGregor, Bt.	5	1	0	513	1907	75·08	258	216
D Comrie (Dunira)	W. Gilchrist Macbeth, Esq.	10	1	3	283	1458	57·41	241	178
D Crieff (Barbary Hill)	Mrs. Wilkie Brown	5	1	0	297	976	38·41	225	156
D Crieff (Strathearn Hydro.)	Dr. G. Meikle	5	1	0	478	1022	40·24	237	167
8.—TAY—Almond & c. 149 sq. mi.									
D Perth (Wellshill Cemetery)	J. Ritchie, Esq., jun.	5	1	0	77	735	28·92	..	135
D Perth (Moulin Almond)	Col. D. M. Smythe	5	1	0	140	833	32·80	208	159
Glenalmond (Fendoch)	T. W. Marshall, Esq.	5	1	4	780	1170	46·08	..	..
w Logiealmond Lodge	Earl of Mansfield	5	0	11	1020	1262	49·69	..	..
9.—TAY—Strathday below Dunkeld. 33 sq. mi.									
Murthly (Douglasfield)	W. A. Rae, Esq.	5	0	6	237	940	37·02	..	..
D Dunkeld (Kincairney House)	Mr. J. Doig	8	1	0	500	961	37·83	240	174
D Dunkeld (Snaigow)	W. H. Cox, Esq.	5	1	0	370	970	38·20	192	148
10.—TAY—Bran. 81 sq. mi.									
11. TAY—Strathday above Dunkeld. 95 sq. mi.									
D Aberfeldy (Dall Avon)	Dr. N. D. Mackay	5	1	0	320	1096	43·14	237	163
D Grandtully (Dunros)	late H. W. Johnston, Esq.	5	1	0	400	1063	41·87	243	174
12.—TAY—Loch Tay. 241 sq. mi.									
D Killin (The Manse)	Rev. G. W. Mackay	5	1	0	400	1846	72·68	243	214
D Kenmore (The Manse)	Rev. W. A. Gillies	5	1	0	450	1276	50·24	223	174
13.—TAY—Lyon. 142 sq. mi.									
D Glenlyon (Meggernie Castle)	Mr. P. McOnie	5	1	0	700	1747	68·76	..	204
14.—TAY—Tummel. 587 sq. mi.									
D Loch Rannoch (The Barracks)	Mr. D. Macdonald	5	1	0	690	1276	50·24	249	205
D Loch Rannoch (Dall)	Mr. D. Robertson, jun.	5	1	0	722	1230	48·44	255	178
D Loch Rannoch (Camuserrachd Lo.)	Mr. D. Menzies	5	1	0	720	1199	47·21	210	195
D Pitlochry (Dunfallandy)	D. Stewart-Fergusson, Esq.	5	1	10	405	1017	40·03	206	179
D Pitlochry (Manse of Foss)	Rev. R. J. Davidson	8	1	0	530	1169	46·01	249	160
D Pitlochry (Bonskeid)	Dr. G. F. Barbour	5	1	0	540	1036	40·78	234	173
D Fincastle House	Dr. G. F. Barbour	5	1	0	980	1108	43·62	224	176
D Blair Atholl (Blair Castle Grdns)	Mr. J. Dickson	5	1	0	500	1057	41·63	247	188
D Glen Tilt (Marble Lodge)	Mr. J. Stewart	5	1	0	1000	1268	49·93	..	..
D Glen Garry (Dalnaspidal Lodge)	Mr. J. Macbeth	5	1	0	1414	1686	66·37	251	242
D Glen Bruar (Bruar Lodge) No. 1	Mr. A. McLauchlan	5	1	0	1600	1306	51·40	256	219
D Glen Bruar (Bruar Lodge) No. 2	Mr. A. McLauchlan	5	1	0	1600	1427	56·20	256	222
D Glen Garry (Sronphadrick Lo.)	Mr. W. MacPherson	5	1	0	1525	1797	70·76	..	..
D Glen Tilt (Fealar Lodge)	Mr. D. M. McDougall	5	1	0	1760	1231	48·45	280	212

## DIVISION XVI.—EAST MIDLAND COUNTIES—(con.).

STATIONS.	AUTHORITIES.	Rain Gauge.				Depth of Rain.		Days with ·01 in. or more.	Days with ·04 in. or more.
		Diam.	Height Ground	above Sea Level.		1923			
PERTH—(con.).		in.	ft.	in.	ft.	mm.	in.		
15.—TAY—Isla. 282 sq. mi.									
D Coupar Angus (Public School)	A. Reid, Esq.	5	2	2	183	807	31·79	194	147
D Blairgowrie (Kinloch Manse)	Mrs. Milne	5	1	0	280	827	32·55	231	144
D Kirkmichael (Ballintuim Ho.)	Miss M. A. Macdonald	5	1	4	700	1230	48·43	240	156
16.—TAY—Left Bank Tributaries. 51 sq. mi.									
D Kinfauns (Balthayock)	R. Wylie Hill, Esq.	5	4	6	323	841	33·13	181	137
D Scone Palace	Earl of Mansfield	5	0	11	91	794	31·27	203	150
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.									
D Kettins School	W. Andrew, Esq.	5	1	0	218	860	33·87	189	139
D Glamis Castle	Mr. D. McInnes	5	0	9	250	1001	39·43	..	149
D Forfar (Lilyfield)	D. M. Mackie, Esq.	5	0	5	225	875	34·46	178	142
Forfar (Orchardbank Sew. Farm)	A. Watterston, Esq., C.E.	4	1	0	214	754	29·69	..	..
D Kirriemuir (Lintrathen)	G. Baxter, Esq., C.E.	8	1	0	700	991	39·00	209	147
M Kirriemuir (Balnakeilly)	G. Baxter, Esq., C.E.	8	1	0	700	1003	39·50	..	..
M Kirriemuir (Creich Hill, S.)	G. Baxter, Esq., C.E.	8	1	0	1482	973	38·30	..	..
M Kirriemuir (Creich Hill, Top)	G. Baxter, Esq., C.E.	8	1	0	1500	1003	39·50	..	..
M Kirriemuir (Creich Hill, N.)	G. Baxter, Esq., C.E.	8	1	0	1491	980	38·60	..	..
2.—FIRTH OF TAY. 80 sq. mi.									
D Buddonness (Low Light)	J. H. Thompson, Esq., C.E.	5	1	0	27	752	29·60	182	147
D Dundee (Harbour)	J. H. Thompson, Esq., C.E.	5	0	11	14	738	29·07	180	134
D Dundee (Eastern Necropolis)	A. Macrae, Esq.	5	1	0	199	789	31·08	216	147
D Dundee (Camperdown Works)	Messrs. Cox, Bros., Ltd.	5	1	2	290	834	32·85	..	..
D Dundee (Balruddery)	J. Martin White, Esq.	5	1	0	266	747	29·41	..	130
D Dundee (College Garden)	Director of Studies	8	1	0	147	753	29·63	188	135
3.—SOUTH ESK & C. 371 sq. mi.									
D Carnoustie	A. F. Anderson, Esq., C.E.	8	1	0	39	669	26·34	201	147
D Craigton	G. Baxter, Esq., C.E.	8	3	0	484	853	33·58	189	149
M Craigton (Hillhead)	G. Baxter, Esq., C.E.	8	3	0	570	883	34·76	..	..
M Crombie Reservoir	G. Baxter, Esq., C.E.	8	3	0	522	967	38·06	..	..
M Monikie (Fallaws)	G. Baxter, Esq., C.E.	8	3	0	585	900	35·42	..	..
D Arbroath (W. Cemetery)	J. W. Robertson, Esq.	5	1	0	93	685	26·97	189	132
Arbroath (Muirheads Res.)	D. H. Shaw, Esq.	5	1	0	251	723	28·48	..	..
Forfar (Pitscandly House)	F. W. Farquhar, Esq.	5	1	6	300	884	34·81	..	..
Montroseness	Board of Northern Lights	3	1	0	124	642	25·27	190	140
D Montrose	D. Maxwell, Esq., C.E.	5	1	0	16	733	29·04	214	139
D Montrose (West-End Park)	D. Maxwell, Esq., C.E.	5	1	0	12	800	31·48	174	144
D Brechin (Argyll Street)	J. Hutton, Esq.	5	1	0	224	963	37·92	203	147
D Forfar W.W. (Den of Ogil)	A. Watterston, Esq., C.E.	12 x 4	0	3	633	1133	44·61	210	158
D Glenogil Waterworks	D. H. Shaw, Esq., C.E.	5	1	0	770	1213	47·74	206	157
D Glen Prosen (Pearsie House)	G. M. Wedderburn, Esq.	5	1	0	600	1184	46·62	199	164
D Glen Prosen (Lednathie)	J. S. Darling, Esq.	5	1	0	720	1513	59·55	..	181
D Glen Prosen (Balnaboth Gdns.)	Mrs. Ogilvie	5	1	0	975	1452	57·16	..	..
4.—NORTH ESK & C. 213 sq. mi.									
Brechin (Trinity)	Miss E. A. Stevenson	8	1	0	295	936	36·85	..	..
D Montrose (Sunnyside Asylum)	C. K. Alexander, Esq.	5	1	0	200	818	32·22	200	151
D Montrose (Kinnaber W.W.)	D. Maxwell, Esq., C.E.	5	1	0	38	769	30·29	205	142
Brechin (Stracathro Gardens)	Mr. A. Dunlop	5	1	0	200	960	37·80	..	..



## DIVISION XVII.—NORTH-EASTERN COUNTIES.

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain.		Days with ·01 in. or more.	Days with ·04 in. or more.	
		Diam.	Height Ground	above Sea Level.	1923				
KINCARDINE. (Area, 382 sq. mi.)		in.	ft.	in.	ft.	mm.	in.		
1.—NORTH ESK & C. 99 sq. mi.									
o Marykirk (Balmakewan)	.....W. Low, Esq.	5	1	1	120	912	35·92	165	142
o Fettercairn (Police Station)	.....Mr. J. F. Brown	5	1	0	235	1056	41·59	188	151
2.—BERVIE, COWIE, & C. 139 sq. mi.									
o Stonehaven (Mains of Cowie)	..John Hart, Esq.	5	1	0	93	828	32·61	260	167
3.—DEE. 144 sq. mi.									
Strachan (Bridge of Dye)	.....Mr. N. MacGregor	5	1	0	513	1401	55·15	244	..
Drumoak (Durriss House)	.....(R) Mr. A. Reid	5	3	6	200	1128	44·40	..	..
o Banchory (Blackhall Cas. Gdns)	Mrs. J. T. Hay	5	0	8	220	1064	41·89	213	185
o Banchory (Invercarnie)	.....George Mitchell, Esq., C.E.	5	1	0	205	1030	40·56	237	162
o Crathes (Schoolhouse)	.....W. S. Kemp, Esq.	5	1	0	269	1001	39·42	240	156
ABERDEEN. (Area, 1974 sq. mi.)									
1.—DEE. 672 sq. mi.									
o Glen Muick	.....George Mitchell, Esq., C.E.	5	1	0	1370	1317	51·87	244	206
Glen Tanner (Aitnach)	.....George Mitchell, Esq., C.E.	5	1	0	1260	1301	51·22	..	..
Dinnat (Glen Tanar Schoolhse.)	"Aberdeen Press and Journal"	..	..	..	..	864	34·01	..	..
o Braemar (Bank)	.....A. M. Shirran, Esq.	5	1	0	1120	1148	45·21	..	207
o Braemar (Derry Lodge)	.....George Mitchell, Esq., C.E.	5	1	0	1400	1272	50·07	270	209
o Balmoral Castle Gardens	.....Mr. R. F. Chalmers	5	1	0	927	961	37·84	265	184
o Abergeldie Castle Gardens	.....Mr. J. Durran	5	1	0	850	994	39·13	212	171
o Ballater (Irrigation Farm)	.....George Mitchell, Esq., C.E.	5	1	0	637	1060	41·75	231	175
o Bienn Bhreac	.....George Mitchell, Esq., C.E.	5	1	0	2700	1590	62·59	..	..
o Aboyne	.....George Mitchell, Esq., C.E.	5	1	0	412	982	38·67	..	162
o Dess House	.....Lt.-Col. D. F. Davidson	5	1	8	480	961	37·85	234	160
o Glen Gairn (Gairn Shield Lodge)	.....George Mitchell, Esq., C.E.	5	1	0	1100	1117	43·98	237	182
o Glen Gairn (Corndavon)	.....George Mitchell, Esq., C.E.	5	1	0	1500	1073	42·25	245	181
o Torphins (School House)	.....Dr. George Davidson	5	1	6	480	945	37·21	197	157
o Lumphanan	.....George Mitchell, Esq., C.E.	5	1	0	490	1040	40·94	..	..
o Drumoak (Drum Castle)	.....Mrs. Irvine	5	0	8	320	965	38·01	221	160
o Logie Coldstone School	.....J. B. Anderson, Esq.	5	1	0	608	991	39·00	270	178
o Aberdeen (Mannofield Res.)	.....George Mitchell, Esq., C.E.	5	1	0	171	1011	39·81	254	170
o Aberdeen (Cranford House)	.....Mr. W. C. Smith	5	1	0	120	1079	42·49	244	184
2.—DON. 512 sq. mi.									
o Aberdeen (King's College) (+A)	The Meteorological Office	8	1	0	48	945	37·20	231	156
Strathdon (Estates Office)	.....C. Christie, Esq.	5	1	2	990	1113	43·84	..	156
o Dyce (Craibstone House)	.....Prof. J. Hendrick	5	1	0	276	1122	44·19	246	180
o Dyce (Parkhill House)	.....J. E. Crombie, Esq.	8	0	11	170	1081	42·56	240	179
o New Machar (Straloch)	.....Mrs. Irvine	5	4	0	320	964	37·96	..	..
o Inverurie (Westfield)	.....James Skinner, Esq.	5	1	0	207	905	35·61	250	148
3.—YTHAN & C. 285 sq. mi.									
o Ellon (Esslemont House)	.....Col. J. Wolrige-Gordon, CMG	5	1	6	100	1039	40·90	249	181
o Haddo House	.....Earl of Haddo	5	0	6	186	1054	41·48	245	194
o Fyvie Castle	.....Col. C. R. Burn, M.P.	5	0	6	200	1094	43·07	213	184
4.—UGIE & C. 257 sq. mi.									
Buchanness	.....Board of Northern Lights	3	3	0	130	801	31·52	..	..
o New Deer School House	.....J. A. Thomson, Esq.	5	1	0	397	1131	44·54	237	195
o Peterhead (Stock Bridge)	.....J. Robertson, Esq.	5	1	1	150	969	38·14	243	177
o Peterhead (Mains of Buthlaw)	.....W. Johnston, Esq.	5	1	6	120	1061	41·79	255	194
o Peterhead (Forehill Works)	.....J. Dickie, Esq., C.E.	5	0	8	133	1031	40·60	239	185
o Brucklay Castle	.....A. Dingwall Fordyce, Esq. M.P.	8	1	0	300	1351	53·18	238	200
Kinnairdhead	.....Board of Northern Lights	3	2	6	120	800	31·50	194	183
5.—DEVERON & C. 248 sq. mi.									
o Drumblade Public School	.....G. Harper, Esq.	5	1	0	485	1136	44·74	279	203
Huntly (Union Bank)	.....Alex. Smith, Esq.	5	1	0	405	1246	49·07	..	..
Huntly	.....R. Milne, Esq.	5	1	0	390	1234	48·58	..	..
Huntly (Cruchie)	.....Miss A. Joss	5	4	0	400	1113	43·82	259	193

## DIVISION XVII.—NORTH-EASTERN COUNTIES—(con.).

STATIONS.	AUTHORITIES.	Rain Gauge.				Depth of Rain.		Days with ·01 in. or more.	Days with ·04 in. or more.
		Diam.	Height Ground	above Sea Level.		1923			
BANFF. (Area, 630 sq. mi.)		in.	ft.	in.	ft.	mm.	in.		
1.—YTHAN. 1 sq. mi.									
2.—DEVERON & C. 344 sq. mi.									
D Drummur Castle	Mr. R. W. Morgan	5	1	0	600	1235	48·62	241	202
Keith Station	Mr. A. Kennedy	5	1	0	364	1369	53·90?	223	188
D Turriff (Forglen Gardens)	Mr. G. Stuart	5	1	0	220	1109	43·67	257	197
Cairnfield (Pathhead)	W. Hendry, Esq.	5	1	4	445	904	35·58	..	..
Buckie (Roughornie)	W. Hendry, Esq.	5	1	4	334	932	36·71	..	..
Buckie (West Church Street)	W. Hendry, Esq.	5	1	4	76	924	36·38	..	..
3.—SPEY—Right Bank Tributaries. 285 sq. mi.									
D Ballindalloch	C. Mackenzie, Esq.	8	1	0	640	1075	42·34	227	184
D Duftown (Fife Street)	Miss B. Walker	5	2	0	579	1284	50·55	236	189
D Aberlour (Dailuaine)	Mr. J. Tullo	5	1	0	500	987	38·87	221	177
D Aberlour Orphanage	J. G. White, Esq.	5	1	0	350	1112	43·77	227	178
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	104	942	37·08	224	172
3.—SPEY—Left Bank Tributaries. 133 sq. mi.									
D Grantown-on-Spey	W. Duncan, Esq.	5	1	1	700	979	38·56	232	178
D Aberlour (Wester Elchies)	Mr. A. Ross	5	1	0	550	1100	43·30	211	173
4.—LOSSIE & C. 154 sq. mi.									
D Lhanbryde (Blackhills House)	T. N. Christie, Esq.	5	3	6	310	923	36·36	229	180
Elgin (Rotha)	W. C. Young, Esq.	..	1	0	60	817	32·15	..	..
d Duffus House	Mr. W. Ogg	5	1	0	55	797	31·36	196	167
5.—FINDHORN & C. 148 sq. mi.									
D Darnaway Castle Gardens	Earl of Moray	5	1	6	170	809	31·86	192	157
D Brodie (Earlsmill House)	William Fenwick, Esq.	5	0	10	135	803	31·62	201	158
Forres (Knockonnie)	W. Fraser, Esq.	5	1	0	93	756	29·75	..	..
NAIRN. (Area, 163 sq. mi.)									
1.—FINDHORN & C. 102 sq. mi.									
D Ardcloch (Glenferness)	Mr. A. McKenzie	8	1	6	750	1094	43·06	218	195
2.—NAIRN & C. 61 sq. mi.									
D Cawdor Castle	(R) Mr. D. Chapman	8	4	3	225	839	33·01	228	162
D Nairn (Balblair)	Major H. C. H. Allanby	5	1	0	94	697	27·45	247	151
D Nairn (Achareidh)	H. A. Clarke, Esq.	8	1	0	59	722	28·44	250	158
D Nairn (Delnies)	The Meteorological Office	8	1	9	82	692	27·25	260	158

## DIVISION XVIII.—NORTH-WESTERN COUNTIES.

INVERNESS. (Area, 4146 sq. mi.)

<b>1.—TAY—Tummel. 28 sq. mi.</b>									
D Loch Ericht (Ben Alder Lodge)	Mr. F. Macintosh	5	1	0	1175	1753	69·01	272	234
<b>2.—SPEY—Right Bank Tributaries. 437 sq. mi.</b>									
D Dalwhinnie (Drumochter Lo.)	Mr. D. Kennedy	5	1	0	1375	1713	67·43	272	249
D Glen Tromie (Gaick Lodge)	Mr. C. Chisholm	5	1	0	1500	1489	58·64	286	228
Nethy Bridge (U.F. Manse)	late Rev. A. Sutherland	5	1	0	750	774	30·46?	189	149
d Aviemore (Rothiemurchus)	W. Dempster, Esq.	5	1	0	706	923	36·34	256	168

## DIVISION XVIII.—NORTH-WESTERN COUNTIES—(con.).

STATIONS.	AUTHORITIES.	Rain Gauge.				Depth of Rain.		Days with ·01 in. or more.	Days with ·04 in. or more.
		Diam.	Height Ground	above Sea Level.		1923			
INVERNESS—(con.).		in.	ft.	in.	ft.	mm.	in.		
<b>3.—SPEY—Left Bank Tributaries. 257 sq. mi.</b>									
D Cluny Castle.....	Mr. A. Macdonald .....	5	0	10	816	1175	46·26	272	218
M Loch Spey .....	British Aluminium Co. Ltd.	5	1	0	1164	1983	78·05	..	..
D Glen Spey (Mealgarve) .....	British Aluminium Co. Ltd.	8	1	0	1135	1562	61·50	281	241
D Laggan (Gergask).....	British Aluminium Co. Ltd.	8	1	0	870	1176	46·29	274	212
D Kingussie.....	A. D. Dallas, Esq.....	8	1	0	815	913	35·95	223	178
d Alvie Gardens .....	Mr. J. G. Fraser .....	5	1	3	800	973	38·31	235	181
D Alvie Manse .....	Rev. Dugald Maclean .....	5	1	0	760	975	38·37	268	179
D Carr Bridge (Crannich) .....	Mrs. A. Doak .....	5	1	0	850	922	36·80	246	159
D Grantown (Muckerach Lodge) ..	Mr. James Fraser.....	5	1	6	750	899	35·41	236	171
<b>4.—FINDHORN. 164 sq. mi.</b>									
<b>5.—NAIRN &amp; C. 131 sq. mi.</b>									
D Gollanfield House .....	The MacKinnon of MacKinnon	5	0	8	80	724	28·49	197	149
<b>6.—NESS—Right Bank Tributaries. 252 sq. mi.</b>									
D Fort Augustus (St. Benedict's) ..	The Procurator .....	5	1	0	68	1223	48·14	225	205
Loch Ness (Killin, Whitebridge) ..	British Aluminium Co. Ltd.	8	1	0	1200	1404	55·26	..	..
D Loch Ness (Garthbeg) .....	British Aluminium Co. Ltd.	8	1	0	645	1052	41·42	264	196
Loch Ness (Foyers) .....	British Aluminium Co. Ltd.	8	1	0	52	1044	41·11	219	161
Loch Ness (Aberchalder) .....	British Aluminium Co. Ltd.	8	1	0	700	1006	39·62	250	184
D Inverness (Culduthel) .....	A. Knowles, Esq. ....	5	1	0	242	697	27·45	223	146
<b>7.—NESS—Garry &amp; c. 185 sq. mi.</b>									
M Loch Quoich (Loan) .....	Col. D. W. Cameron .....	5	1	0	650	3685	145·10	..	..
d Loch Quoich (Kinlochquoich) ..	Col. D. W. Cameron .....	5	1	0	560	3427	134·90	..	250
D Loch Quoich (Glenquoich) .....	Mr. C. Macrae.....	5	1	2	569	3289	129·50	..	268
D Invergarry Gardens .....	Mr. Donald Stewart .....	5	1	0	130	1846	72·69	242	236
<b>8.—NESS—Moriston. 120 sq. mi.</b>									
<b>9.—NESS—Enrick. 131 sq. mi.</b>									
D Inverness (Ruigh Ard Asylum) ..	Dr. F. C. Mackenzie .....	5	0	11	330	779	30·65	253	181
<b>10.—BEAULY. 341 sq. mi.</b>									
<b>11.—GROMARTY FIRTH. 13 sq. mi.</b>									
<b>12.—SOUND OF SLEAT. 259 sq. mi.</b>									
D Loch Nevis (Inverie Gardens) ..	Mr. J. Huggins .....	5	0	6	15	2632	103·63	281	259
D Glenelg Manse .....	Rev. A. Mactaggart .....	5	1	0	85	1367	53·83	245	220
<b>13.—SOUND OF ARISAIG. 126 sq. mi.</b>									
D Moidart (Kinlochmoidart) .....	J. C. Stewart, Esq.....	5	1	0	13	2338	92·06	276	262
D Moidart (Roshven) .....	Mrs. Wm. Blackburn .....	5	1	0	40	2167	85·32	293	251
D Arisaig (Faire-na-Sguir) .....	Miss C. C. Astley .....	5	1	0	30	1816	71·50	274	240
D Arisaig House .....	Mr. W. Grant.....	5	1	0	45	2059	81·07	273	256
<b>14.—LOCH LINNHE—Right Bank Tributaries. 48 sq. mi.</b>									
D Loch Eil (Achdaliu) .....	Col. D. W. Cameron .....	5	1	0	100	1849	72·81	241	232
<b>15.—LOCHY—Right Bank Tributaries. 143 sq. mi.</b>									
D Loch Arkaig (Achnacarry) .....	Col. D. W. Cameron .....	5	1	0	128	2295	90·34	279	231
D Loch Arkaig (Glen Dessary) .....	Col. D. W. Cameron .....	5	1	0	300	3171	124·86	273	264
<b>16.—LOCHY—Left Bank Tributaries. 362 sq. mi.</b>									
Loch Treig (Creaguaineach) ..	British Aluminium Co., Ltd.	5	1	0	800	2180	85·84	..	..
Loch Ossian (Strathossian Ho.) ..	British Aluminium Co. Ltd.	8	1	0	1180	2065	81·30	..	..
M Ben Alder (Loch a' Bhealaich) ..	Mr. F. Macintosh .....	5	1	0	2360	3597	141·60	..	..
M Ben Alder (Lochan Sgoir) .....	Mr. F. Macintosh .....	5	1	0	2300	3579	140·90	..	..
Loch Treig (Fersit) .....	British Aluminium Co. Ltd.	8	1	0	850	1756	69·12	..	..
M Loch Pattaig.....	Sir J. F. Ramsden, Bt.....	5	0	8	1442	1890	74·40	..	..
Glen Spean (Craigbeg) .....	British Aluminium Co. Ltd.	8	1	0	860	1669	65·72	..	..
M Loch Laggan (Ardverikie) .....	Sir J. F. Ramsden, Bt. ....	5	0	6	825	1688	66·46	..	..

## DIVISION XVIII.—NORTH-WESTERN COUNTIES—(con.).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain.		Days with ·01 in. or more.	Days with ·04 in. or more.	
		Diam.	Height Ground	above Sea Level.	1923				
INVERNESS—(con.).		in.	ft.	in.	ft.	mm.	in.		
17.—LOCH LINNHE—Left Bank Tributaries. 120 sq. mi.									
D North Ballachulish (Alltshellach)	B. Chinnery-Haldane, Esq.	5	2	1	80	2284	89·92	293	249
D Glenleven (Blackwater Dam, N)	7 British Aluminium Co. Ltd.	8	1	0	1072	2691	105·95	305	267
D Kinlochleven (Kinlochmore Lo.)	Brian Bibby, Esq.	5	1	0	115	2870	112·98	298	265
Kinlochleven (Mamore Lodge)	Mr. D. McKenzie	5	1	8	700	3055	120·28	..	..
Glenleven (Invercam)	No. 6 British Aluminium Co. Ltd.	8	1	6	1070	2321	91·39	..	..
Glenleven (Cirain)	No. 3 British Aluminium Co. Ltd.	8	1	6	1200	2621	103·20	..	..
Glenleven (Loch Eilde Mòr)	British Aluminium Co. Ltd.	8	1	6	1130	3166	124·64	..	..
Glenleven (Loch Eilde Beg)	British Aluminium Co. Ltd.	8	1	6	1125	3308	130·25	..	..
Glenleven (Corrour)	No. 5 British Aluminium Co. Ltd.	8	1	6	1260	2333	91·83	..	..
D Fort William	W. T. Kilgour, Esq.	5	1	0	281	2277	89·63	278	231
18.—INSULAR, INNER HEBRIDES. 786 sq. mi.									
Hyskier	Board of Northern Lights	5	7	0	12	1152	45·34	233	222
Skye (Oronsay)	Board of Northern Lights	5	0	6	20	1668	65·66	237	226
D Skye (Duisdale House)	R. A. Noël Paton, Esq.	5	3	0	80	2621	103·20	255	251
D Skye (Kyleakin, Dunringell)	Maj. A. D. Mackinnon, C.M.G.	5	2	1	80	2033	80·03	279	237
Skye (Kyleakin Lighthouse)	Board of Northern Lights	5	4	6	53	1585	62·38	237	221
D Skye (Scalpay Island)	Mr. D. Gunn	5	1	0	4	2276	89·62	280	256
D Skye (Portree)	D. Dewar, Esq.	5	1	0	65	2065	81·29	287	253
D Skye (Dunvegan)	Mrs. Mackenzie	5	3	0	47	1750	68·90	283	241
D Skye (Skeabost)	Mr. J. A. Cargill	5	2	0	7	2116	83·30	271	248
Rona	Board of Northern Lights	3	1	3	212	845	33·28 ?	246	169
19.—INSULAR, OUTER HEBRIDES. 243 sq. mi.									
D Barra (Castle Bay)	The Meteorological Office	8	1	0	37	878	34·58	288	210
South Uist (Ushenish)	Board of Northern Lights	3	1	0	178	758	29·84 ?	215	185
North Uist (Monach)	Board of Northern Lights	8	5	6	20	1012	39·85	256	203
Harris (Island Glass)	Board of Northern Lights	7	4	2	130	1315	51·77	272	255
ROSS & CROMARTY. (Area 3237 sq. mi.)									
1.—NESS—Moriston. 35 sq. mi.									
2.—BEAULY. 109 sq. mi.									
3.—MORAY FIRTH COAST STREAMS. 64 sq. mi.									
D Fortrose	A. Thom, Esq.	5	1	0	69	614	24·16	221	153
4.—CROMARTY FIRTH. 714 sq. mi.									
D Achnasheen (Ledgowan)	Mr. J. W. Macrae	5	1	0	500	2113	83·20	274	247
D Strathpeffer	W. P. Hutton, Esq.	8	1	0	125	891	35·06	252	177
Cromarty House	Brig.-Gen. W. C. Ross, C.B.	5	1	0	60	694	27·34	223	153
Cromarty	Board of Northern Lights	3	1	0	28	531	20·89 ?	..	..
D Alness (Ardross Castle)	Mr. John Melrose	5	1	0	450	1149	45·24	257	198
5.—DORNOCH FIRTH. 355 sq. mi.									
Tarbetness	Board of Northern Lights	8	4	0	175	663	26·12	188	163
D Bonar Bridge Station	Mr. W. MacPherson	..	..	..	..	903	35·54	221	172
6.—ENARD BAY. 78 sq. mi.									
7.—LOCH BROOM & C. 367 sq. mi.									
Braemore (Loch a' Bhraoin)	R. Matheson, Esq.	8	0	9	822	2412	94·97	..	..
D Ullapool	Mr. D. Wallace	5	1	6	75	1498	58·97	271	230
8.—LOCH EWE, LOCH TORRIDON & C. 423 sq. mi.									
D Loch Torridon (Bendamph)	Earl of Lovelace	5	1	0	20	2505	98·62	269	258
D Poolewe (Inverewe Gardens)	Mr. J. M. Grant	5	0	6	20	1546	60·86	260	237
Rudh Ré Lighthouse	Board of Northern Lights	5	0	6	40	1137	44·75	251	216

## DIVISION XVIII.—NORTH-WESTERN COUNTIES—(con.).

STATIONS.	AUTHORITIES.	Rain Gauge.				Depth of Rain.		Days	Days
		Diam.	Height Ground.	above Sea Level.	1923	·01 in. or more.	·04 in. or more.		
ROSS & CROMARTY—(con.).		in.	ft.	in.	ft.	mm.	in.		
9.—LOCH CARRON, LOCH ALSH & C. 401 sq. mi.									
M Glen Shiel (Shiel House) . . . . .	Mr. Colin Campbell . . . . .	5	1	6	30	2283	89·87	..	..
d Loch Carron (Plockton) . . . . .	Mrs. Anstruther Mackay ..	5	1	0	8	1668	65·68	..	220
d Loch Carron (Strome Ferry) ..	Mr. D. D. Munro . . . . .	5	1	0	..	2066	81·33	275	245
d Loch Carron (Dunhulladale) ...	Mrs. G. J. Campbell . . . . .	5	1	0	9	2283	89·87	296	249
Applecross Gardens . . . . .	Mr. D. McCowan . . . . .	5	1	0	70	1896	74·64	..	..
d Achnashellach . . . . .	Mr. W. McClymont . . . . .	5	1	0	225	2459	96·80	280	249
10.—INSULAR, OUTER HEBRIDES. 691 sq. mi.									
Stornoway Lighthouse . . . . .	Board of Northern Lights.	8	4	9	20	1107	43·60?	269	217
d Stornoway . . . . .	The Meteorological Office..	8	1	0	52	1401	55·17	293	243
Tiumpthead . . . . .	Board of Northern Lights.	5	0	9	118	1050	41·33	213	204
Butt of Lewis . . . . .	Board of Northern Lights.	8	4	6	170	1175	46·26	264	224

## DIVISION XIX.—NORTHERN COUNTIES.

## SUTHERLAND. (Area, 2080 sq. mi.)

<b>1.—DORNOCH FIRTH. 413 sq. mi.</b>									
d Lairg . . . . .	A. Low, Esq. . . . .	5	1	0	330	1193	46·99	242	208
<b>2.—FLEET, BRORA &amp; C. 309 sq. mi.</b>									
d Golspie (Technical School) . . . . .	E. W. Read, Esq. . . . .	6	1	9	100	1117	43·97	217	178
d Dunrobin Castle . . . . .	(+A) The Duke of Sutherland . . . . .	5	1	0	14	897	35·30	224	181
<b>3.—HELMSDALE &amp; C. 226 sq. mi.</b>									
d Helmsdale . . . . .	Mr. W. Stalker . . . . .	5	1	0	120	896	35·27	223	175
<b>4.—NORTH COAST STREAMS. 736 sq. mi.</b>									
d Tongue Manse . . . . .	Rev. David Lundie . . . . .	5	1	0	180	1281	50·42	274	235
d Melvich Schoolhouse . . . . .	A. MacIntosh Esq. . . . .	5	1	0	200	1201	47·28	267	215
Cape Wrath . . . . .	Board of Northern Lights . . . . .	7	4	8	400	1010	39·75	181	159
<b>5.—LOCH LAXFORD &amp; C. 256 sq. mi.</b>									
d Loch More (Achfary) . . . . .	Mr. J. Munro . . . . .	5	1	0	137	2749	108·22	289	263
<b>6.—ENARD BAY. 138 sq. mi.</b>									
<b>7.—INSULAR. 2 sq. mi.</b>									

## CAITHNESS. (Area, 696 sq. mi.)

<b>1.—BERRIEDALE, DUNBEATH &amp; C. 169 sq. mi.</b>									
Cythness . . . . .	Board of Northern Lights . . . . .	5	1	6	116	914	35·98	217	177
<b>2.—WICK &amp; C. 184 sq. mi.</b>									
d Wick (South Head C.G. Stn.) . . . . .	The Meteorological Office . . . . .	8	1	2	81	981	38·63	255	190
Nosshead . . . . .	Board of Northern Lights . . . . .	7	4	7	175	836	32·92	183	159
<b>3.—THURSO &amp; C. 238 sq. mi.</b>									
d Altnabreac . . . . .	Mr. G. Strachan . . . . .	5	1	0	500	1021	40·20	223	199
d Thurso (Buckies) . . . . .	J. H. M. Davidson, Esq. . . . .	5	0	11	240	1134	44·64	256	212
Thurso (Holburn Head) . . . . .	Board of Northern Lights . . . . .	3	0	8	75	1018	40·09	248	209
Dunnet Head . . . . .	Board of Northern Lights . . . . .	3	1	0	246	1201	47·28	180	176
<b>4.—FORSS &amp; C. 104 sq. mi.</b>									
d Reay (The Manse) . . . . .	Rev. Dugald Carmichael . . . . .	8	1	0	49	1231	48·45	275	219
<b>5.—INSULAR. 1 sq. mi.</b>									
Stroma . . . . .	Board of Northern Lights . . . . .	5	3	0	35	871	34·29	198	194

## DIVISION XIX.—NORTHERN COUNTIES—(con.).

STATIONS.	AUTHORITIES.	Rain Gauge.				Depth of Rain.		Days with ·01 in. or more.	Days with ·04 in. or more.	
		Diam.	Height Ground.	above Sea Level.		1923				
ORKNEY. (Area, 389 sq. mi.)			in.	ft.	in.	ft.	mm.	in.		
Hoy (Cantickhead) .....	Board of Northern Lights .	3	1	0	115		1241	48·85	240	212
Hoy (Graemsay Sound, High) ..	Board of Northern Lights .	5	0	4	115		1123	44·23	230	216
Hoy (Graemsay Sound, Low) .	Board of Northern Lights .	8	4	3	55		1259	49·56	243	204
Copinsay .....	Board of Northern Lights .	5	1	0	210		728	28·67	243	165
D Pomona (Deerness) .....	The Meteorological Office .	5	4	0	161		1244	49·00	289	216
Hellyar Holm .....	Board of Northern Lights .	3	1	0	60		1243	48·95	268	217
Shapinsay (Balfour Castle) ....	Mr. W. Liddell.....	5	0	6	50		1047	41·20	..	..
Auskerry .....	Board of Northern Lights .	3	2	6	10		1016	40·00	254	195
Sanday (Start Point) .....	Board of Northern Lights .	3	1	0	80		1036	40·77	201	178
Westray (Noup Head) .....	Board of Northern Lights .	3	1	0	260		946	37·24	223	193
North Ronaldshay .....	Board of Northern Lights .	3	0	4	140		829	32·63	224	192
Sule Skerry .....	Board of Northern Lights .	3	0	6	113		1070	42·13	211	204
SHETLAND. (Area, 558 sq. mi.)										
Fair Isle, North .....	Board of Northern Lights .	5	4	4	230		708	27·86	227	213
Sumburgh Head .....	Board of Northern Lights .	5	1	3	260		651	25·65	..	130
D Lerwick Observatory.....	The Meteorological Office..	8	1	0	269		1153	45·38	259	201
D Lerwick.....	(+A) The Meteorological Office..	8	1	0	154		1211	47·68	267	195
D Unst (Balta Sound, Halligarth) ..	Dr. T. E. Saxby .....	5	1	0	31		1390	54·72	304	223

## IRELAND.

## DIVISION XX.—MUNSTER.

STATIONS.	AUTHORITIES.	Rain Gauge.				Depth of Rain.		Days with ·01 in. or more.	Days with ·04 in. or more.
		Diam.	Height above Ground		Sea Level.	1923			
CORK. (Area, 2873 sq. mi.)		in.	ft.	in.	ft.	mm.	in.		
<b>1.—SHANNON—Left Bank Tributaries. 79 sq. mi.</b>									
<b>2.—DINGLE BAY. 4 sq. mi.</b>									
<b>3.—KENMARE &amp; C. 47 sq. mi.</b>									
<b>4.—BANTRY BAY. 197 sq. mi.</b>									
Bantry House	W. Stevens, Esq.	5	1	10	25	1517	59·73	208	174
d Garinish Island	T. O'Donohoe, Esq.	5	0	6	15	2010	79·14	230	203
<b>5.—DUNMANUS BAY. 57 sq. mi.</b>									
<b>6.—BANDON &amp; C. 694 sq. mi.</b>									
d CastleTownshend (GlenBarrahane)	Capt. Sir M. P. Coghil, Bt.	5	1	3	100	1354	53·29	213	166
d CastleTownshend (Seafeld)	Major H. Chavasse	5	0	8	40	1402	55·21	219	177
Skibbereen (Hollybrook Farm)	Col. A. H. Morgan, D.S.O.	8	1	6	60	1591	62·65	221	..
d Caheragh (The Rectory)	Rev. A. W. Whitley	5	1	0	98	1675	65·96	236	191
d Clonakilty (Shannon Vale Ho.)	T. J. Bennett, Esq.	5	1	3	135	1123	44·22	191	151
Drinagh Rectory	Rev. Harold Hadden	5	2	0	..	1555	61·23	..	..
d Kinsale (Scilly House)	J. J. Orr, Esq., M.D.	5	1	0	62	967	38·05	198	143
d Dunmanway (The Rectory)	Rev. Canon A. Wilson	5	1	6	205	1572	61·88	240	189
d Enniskean (Kilcoleman)	Miss E. Longfield	5	2	6	180	1220	48·03	190	158
<b>7.—CORK HARBOUR. 726 sq. mi.</b>									
d Ballinageary (Inchibeg)	H. N. Walsh, Esq.	5	1	0	400	2263	89·08	..	..
d Crookstown (Bellmount)	Capt. J. E. H. Herrick	8	2	6	400	1314	51·75	223	177
d Cork (University College) (+A)	H. N. Walsh, Esq.	5	1	0	65	1042	41·04	214	154
d Cork (Wellington Road)	R. C. Sikes, Esq., C.E.	5	2	2	120	1064	41·90	..	154
d Middleton (Ballinacurra)	J. H. Bennett, Esq.	8	0	8	25	942	37·08	218	148
d Queenstown (Fota Island)	Mr. R. Forbes	5	1	6	35	1152	45·34	..	163
d Glanmire (Lota Lodge)	No. 1. A. F. Sharman-Crawford Esq	5	1	0	200	1177	46·32	226	167
d Dripsey Woollen Mills	H. N. Walsh, Esq.	5	1	0	250	968	38·117	..	..
<b>8. WOMANAGH &amp; C. 118 sq. mi.</b>									
d Roches Point	The Meteorological Office	8	1	0	33	979	38·53	246	153
d Shanagarry (Kinoith)	Miss L. P. Strangman	5	1	0	75	853	33·58	..	136
<b>9.—BLACKWATER. 922 sq. mi.</b>									
d Mallow (Longueville)	R. E. Longfield, Esq.	5	1	0	310	953	37·50	223	156
Kanturk (Castlecarr)	Mrs. Norton Barry	..	..	..	..	1031	40·60	242	185
d Mitchelstown Castle	W. D. Webber, Esq.	8	2	6	345	1154	45·43	230	182
<b>10.—SUIR. 3 sq. mi.</b>									
<b>11.—INSULAR. 26 sq. mi.</b>									
KERRY. (Area, 1851 sq. mi.)									
<b>1.—SHANNON—Left Bank Tributaries. 372 sq. mi.</b>									
<b>2.—TRALEE BAY &amp; C. 221 sq. mi.</b>									
Castlegregory (Kilgobbin Rec.)	Rev. E. A. Hackett	5	4	0	30	1857	73·12	..	..
<b>3.—DINGLE BAY. 789 sq. mi.</b>									
d Cahirciveen Water Works	The Meteorological Office	5	0	11	420	1914	75·37	..	..
d Cahirciveen (Valencia Obs.) (+A)	The Meteorological Office	8	1	0	30	1522	59·94	267	204
d Gap of Dunloe (Gearahameen)	The Meteorological Office	8	3	0	75	2751	108·30	..	..
d Killarney (District Asylum)	E. W. Griffin, Esq., M.D.	5	1	2	173	1458	57·41	260	198
Killorglin (Callinafercy)	Maj. M. R. Leeson-Marshall	5	2	0	30	1737	68·37	..	..

## DIVISION XX.—MUNSTER—(con.).

STATIONS.	AUTHORITIES.	Rain Gauge.				Depth of Rain.		Days with ·01 in. or more.	Days with ·04 in. or more.
		Diam.	Height Ground	above Sea Level.		1923			
KERRY—(con.).		in.	ft.	in.	ft.	mm.	in.		
4.—KENMARE & C. 426 sq. mi.									
D Darrynane Abbey	Miss M. O'Connell	5	1	0	13	1196	47·10	273	207
D Kenmare (Dromore Castle)	Lt.-Col. E. Hood	5	1	0	90	2055	80·90	257	230
Kenmare (Sheen Falls)	Earl of Kerry	5	0	5	25	1995	78·54	247	208
5.—BLACKWATER. 30 sq. mi.									
6.—INSULAR. 13 sq. mi.									
WATERFORD. (Area, 715 sq. mi.)									
1.—BLACKWATER. 243 sq. mi.									
Cappoquin (Mt. Melleray Abbey)	Irish Rainfall Association	5	1	0	760	1291	50·83	..	..
2.—COLLIGAN & C. 259 sq. mi.									
3.—SUIR. 213 sq. mi.									
D Knockaderry Reservoir	No. 1 J. J. Fleming, Esq., C.E.	5	7	7	247	982	38·65	203	141
D Waterford (Brook Lodge)	late C. P. Bolton, Esq., C.E.	5	1	0	104	945	37·22	199	162
D Waterford (Tycor Waterworks)	J. J. Fleming, Esq., C.E.	5	0	7	171	920	36·23	..	156
D Waterford (Gortmore)	Mrs. N. H. White	5	1	2	137	949	37·39	233	149
D Portlaw (Curraghmore Gdns.)	Mr. W. H. Arrowsmith	5	1	0	95	1011	39·79	..	146
D Carrick-on-Suir (Seskin)	J. Ernest Grubb, Esq.	8	1	0	542	1153	45·40	229	158
TIPPERARY. (Area, 1660 sq. mi.)									
1.—SHANNON—Left Bank Tributaries. 582 sq. mi.									
Cappaghwhite (Greenfields Stud)	Mr. P. Schofield*	5	1	9	350	1126	44·32	..	..
D Nenagh (Traverston)	Miss A. H. Norris	5	1	0	333	1164	45·81	301	194
Killaloe (Ballina)	Office of Public Works*	5	2	0	126	1319	51·94	248	..
D Nenagh (St. Mary's Rectory)	Rev. Canon C. W. McDowell	5	1	0	180	972	38·26	237	178
D Nenagh (Castle Lough)	S. Parker-Hutchinson, Esq.	5	1	3	120	1123	44·20	244	185
D Terryglass (Old Court)	M. D. Hickie, Esq.	5	1	0	150	951	37·46	245	181
Terryglass (Slevoyre)	Gen. Sir W. B. Hickie, K.C.B.	8	1	0	143	902	35·50	220	..
2.—BLACKWATER. 21 sq. mi.									
3.—SUIR. 965 sq. mi.									
Clonmel (Coolgreany)	Mrs. J. Crean*	8	1	0	100	1051	41·38	..	..
Cahir (Abbey)	Mrs. W. Rochfort	5	1	0	160	1020	40·16	222	173
D Tipperary (Friarsfield)	Edward Ensor, Esq.	5	1	0	333	1083	42·64	..	181
D Tipperary (Kingswell)	Mrs. W. Frewen*	5	1	0	350	1039	40·89	209	183
D Fethard (Coolmore)	Miss Murphy	5	1	0	347	988	38·90	243	181
D Cashel (Ballinamona)	E. W. M. Murphy, Esq.	5	1	0	262	1012	39·86	246	172
D Cashel (Ballyowen House)	F. H. McCan*	5	1	0	485	944	37·15	227	179
D Thurles (Brittas Castle)	Mrs. Knox*	6	1	0	360	830	32·67	..	..
Templemore (Barnane)	Capt. A. Carden, R.A.	5	1	0	650	1274	50·14	217	..
4.—BARROW—Nore. 92 sq. mi.									
D Roscrea (Timoney Park)	S. Parker-Hutchinson, Esq.	5	1	0	485	990	38·99	230	176
LIMERICK. (Area, 1040 sq. mi.)									
1.—SHANNON—Right Bank Tributaries. 7 sq. mi.									
D Limerick (Derravoher)	Capt. Eric R. Shaw	5	1	0	40	995	39·16	253	189

\* Per Irish Rainfall Association.



## DIVISION XX.—MUNSTER—(con.).

STATIONS.	AUTHORITIES.	Rain Gauge.		Depth of Rain. 1923	Days with ·01 in. or more.	Days with ·04 in. or more.		
		Diam.	Height above Sea Level.					
LIMERICK—(con.).		in.	ft. in.	ft.	mm.	in.		
2.—SHANNON—Left Bank Tributaries. 944 sq. mi.								
Abbeyfeale (Springmount Sch.)	J. F. O'Kelly, Esq.	5	1	5 360	1251	49·25	205	199
d Knocklong (Kilfrush)	F. J. B. Gubbins, Esq.	5	1	0 312	1063	41·83	225	192
Glin (Shannon Lawn)	C. V. Hickie, Esq.	4	3	6 20	1284	50·55	..	..
d Foynes (Coolnanes)	Lord Monteagle	5	1	0 50	1177	46·36	272	204
d Foynes (National School)	W. Purtil, Esq.	5	1	8 15	1140	44·87	232	191
Limerick (O'Connell Street)	R. Davison, Esq., C.E.	5	1	0 51	1150	45·28	236	190
Limerick (Mulgrave Street)	Capt. E. R. Shaw	5	1	1 60	1162	45·76	253	192
Limerick (Strand)	W. J. C. Horne, Esq.	5	1	0 50	1065	41·93	249	..
d Glenstal Castle	Sir Charles Barrington, Bt.	8	1	0 400	1297	51·05	224	195
d Castleconnell Rectory	Rev. L. G. Davis	5	1	0 88	1323	52·07	240	201
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	0 479	2107	82·94	272	249
3.—SHANNON—Right Bank Tributaries. 854 sq. mi.								
Kilkee (Liscrona)	R. N. Griffin, Esq.	5	1	0 80	1105	43·52	238	220
d Dromoland Castle	Lord Inchiquin	5	1	6 25	1175	46·28	232	193
Killaloe (Clarisford)	Rt. Rev. Bishop Berry*	..	1	3 130	1357	53·42	226	..
Killaloe	Denis Crowe, Esq.	5	2	0 126	1319	51·94	248	195
d Broadford (Hurdlestown)	Lt.-Col. W. A. Bentley	5	1	0 167	1378	54·26	263	214
4.—INSULAR. 22 sq. mi.								

DIVISION XXI.—LEINSTER.

WEXFORD. (Area, 902 sq. mi.)								
1.—BARROW. 43 sq. mi.								
2.—OWENDUFF & C. 240 sq. mi.								
d Foulkesmill (Longraigue)	Miss J. Deane	5	1	1 220	1011	39·82	166	144
3.—SLANEY & C. 467 sq. mi.								
Johnstown Castle	Lady Maurice Fitzgerald	5	1	0 201	1014	39·92	179	142
Enniscorthy (Monksgrange)	Goddard H. Orpen, Esq.	5	1	0 565	1248	49·15	203	172
Enniscorthy (Woodbrook)	E. C. Blacker, Esq.	5	1	0 360	1260	49·60	216	200
d Newtownbarry (Weston)	G. T. Lewis, Esq.	5	1	0 153	1046	41·18	219	159
4.—OWENAVORRAGH & C. 146 sq. mi.								
d Oulart (Wells House)	C. M. Doyne, Esq.	5	1	0 220	1047	41·20	207	155
d Gorey (Courtown House)	Earl of Courtown	5	3	0 60	911	35·87	184	136
5.—OVOGA & C. 6 sq. mi.								
KILKENNY. (Area, 798 sq. mi.)								
1.—SUIR. 162 sq. mi.								
d Piltown (Bessborough)	Mr. T. E. Tomalin	8	3	7 60	953	37·50	234	149

## DIVISION XXI.—LEINSTER.

WEXFORD. (Area, 902 sq. mi.)

**1.—BARROW. 43 sq. mi.****2.—OWENDUFF & C. 240 sq. mi.**

Foulkesmill (Longraigue)	Miss J. Deane	5	1	1	220	1011	39·82	166	144
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**3.—SLANEY & C. 467 sq. mi.**

Johnstown Castle	Lady Maurice Fitzgerald	5	1	0	201	1014	39·92	179	142
Enniscorthy (Monksgrange)	Goddard H. Orpen, Esq.	5	1	0	565	1248	49·15	203	172
Enniscorthy (Woodbrook)	E. C. Blacker, Esq.	5	1	0	360	1260	49·60	216	200
Newtownbarry (Weston)	G. T. Lewis, Esq.	5	1	0	153	1046	41·18	219	159

**4.—OWENAVORRAGH & C. 146 sq. mi.**

Oulart (Wells House)	C. M. Doyne, Esq.	5	1	0	220	1047	41·20	207	155
Gorey (Courtown House)	Earl of Courtown	5	3	0	60	911	35·87	184	136

**5.—OVOCA & C. 6 sq. mi.**

KILKENNY. (Area, 798 sq. mi.)

**1.—SUIR. 162 sq. mi.**

Piltown (Bessborough)	Mr. T. E. Tomalin	8	3	7	60	953	37·50	234	149
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\* Per Irish Rainfall Association.

## DIVISION XXI.—LEINSTER—(con.).

STATIONS.	AUTHORITIES.	Rain Gauge.				Depth of Rain.		Days with ·01 in. or more.	Days with ·04 in. or more.
		Diam.	Height Ground.	above Sea Level.		1923			
KILKENNY—(con.).		in.	ft.	in.	ft.	mm.	in.		
2.—BARROW—Nore. 527 sq. mi.									
d Inistioge (Woodstock Gardens)	Mrs. Tighe .....	5	1	0	400	977	38·45	..	142
Kilkenny (Lavistown House)	Miss F. E. Butler .....	5	2	5	170	785	30·89	205	159
d Kilkenny Castle .....	Earl of Ossory .....	8	1	6	194	841	33·12	226	160
d Castlecomer House .....	Capt R. H. Prior-Wandesforde	5	1	0	380	1084	42·67	235	184
3.—BARROW. 109 sq. mi.									
d Goresbridge (Barraghcore House)	H. de M. Fleming, Esq. . .	5	1	0	130	837	32·97	234	154
WICKLOW. (Area, 781 sq. mi.)									
1.—BARROW. 12 sq. mi.									
2.—SLANEY. 200 sq. mi.									
d Shillelagh (Coollattin Gardens)	F. Cox, Esq. ....	5	0	9	383	1070	42·11	185	165
3.—OVOCA & C. 241 sq. mi.									
d Arklow Rectory .....	H. W. Strong, Esq. ....	5	1	0	186	724	28·52	202	142
Rathdrum (Avondale) .....	A. C. Forbes, Esq. ....	5	0	6	420	1178	46·38	..	..
4.—VARTRY & C. 193 sq. mi.									
Wicklow (Wentworth House)	late E. N. Wynne, Esq., C.E.*	5	1	1	23	895	35·24	207	..
d Rathnew (Clonmannon) .....	Rev. W. H. A. Truell ....	5	1	6	27	842	33·14	196	137
Roundwood (Vartry Lodge) ..	Dublin Corporation * .....	5	1	8	720	1065	41·92	214	..
Roundwood (Knockatemple) ..	Dublin Corporation * .....	5	1	8	700	1119	44·07	243	..
Roundwood .....	Dublin Corporation * .....	5	1	8	800	1123	44·22	236	..
d Newcastle (Killadreenan) .....	C. Denys Hanan, Esq., M.D.	8	1	2	256	944	37·15	198	141
w Tithewer .....	Dublin Corporation * .....	5	1	6	1000	1075	42·31	..	..
w Annacarter Schoolhouse .....	Dublin Corporation * .....	5	1	6	750	1089	42·87	..	..
d Greystones (Rathdown) .....	Miss L. Armstrong .....	5	0	6	160	849	33·44	200	127
d Enniskerry (Kilgarron) .....	A. E. Chatterton, Esq. ....	5	0	9	400	1141	44·94	210	155
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. O.B.E.	5	1	0	340	908	35·76	224	170
Carlow (Browne's Hill) .....	Col. R. Browne Clayton ..	5	1	0	291	828	32·61	..	179
3.—SLANEY. 121 sq. mi.									
d Rathvilly (Lisnavagh Gardens)	C. E. Faulkner, Esq. ....	5	4	0	400	953	37·51	234	197
d Hacketstown Rectory .....	Rev. C. S. S. Ellison .....	5	1	2	590	1048	41·27	263	188
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	938	36·93	234	180
d Mountrath (Baureigh) .....	P. Barry, Esq. ....	5	1	0	700	1604	63·16	287	228
3.—BARROW. 300 sq. mi.									
Carlow (Sunnyside) .....	E. Shackleton, Esq. ....	5	1	0	178	902	35·50	..	..
d Maryborough (Clonreher) .....	G. N. Jessop, Esq. ....	5	1	0	300	796	31·34	..	..
d Mountmellick (Summer Grove)	W. A. Robinson, Esq. ....	5	1	0	252	1024	40·33	235	186
Portarlinton (Woodbrook Ho.)	Mrs. G. S. Chetwood-Aiken	5	0	9	240	805	31·68	..	..
KING'S COUNTY. (Area, 772 sq. mi.)									
1.—SHANNON—Left Bank Tributaries. 560 sq. mi.									
d Birr Castle .....	Earl of Rosse .....	8	1	0	175	950	37·42	250	184
Kinnitty (Moneyguynen Ho.) ..	W. Conway, Esq.* .....	..	..	..	300	954	37·55	..	..

\* Per Irish Rainfall Association.

## DIVISION XXI.—LEINSTER—(con.).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain. 1923	Days with ·01 in. or more.	Days with ·04 in or more.					
		Diam.	Height Ground.	above Sea Level.								
KING'S COUNTY—(con.).					in.	ft.	in.	ft.	mm.	in.		
1.—SHANNON—Left Bank Tributaries—(con.).												
d Meelick (Victoria Lock) . . . . .	Office of Public Works . . .	5	2	0	121	679	26·75?	217	161			
Tullamore (Rathrobin). . . . .	J. Bracken, Esq.* . . . . .	5	1	0	400	933	36·73	228	..			
d Tullamore (St.Catherine's Rect.)	The Very Rev. R. S. Craig . . .	5	1	3	201	845	33·26	227	173			
Tullamore (St.Vincent's Hosp.).	Dr. G. A. Moorhead. . . . .	5	1	0	225	870	34·26	234	182			
Ferbane (Turraun Peat Works) .	Leinster Carbonizing Co.Ltd.*8	1	2		165	894	35·19	211	..			
d Ballycumber (Bellair Ho.) . . . .	Mrs. F. B. Mulock. . . . .	5	..		290	779	30·67	..	..			
2.—BARROW—Nore. 5 sq. mi.												
3.—BARROW. 156 sq. mi.												
Edenderry (Tubberdaly Ho.) . . .	J. Murphy, Esq.* . . . . .	..	..		330	949	37·37	..	..			
4.—BOYNE. 51 sq. mi.												
KILDARE. (Area, 654 sq. mi.)												
1.—BARROW. 332 sq. mi.												
2.—LIFFEY. 246 sq. mi.												
d Straffan House . . . . .	John Kane, Esq. . . . .	5	1	0	256	856	33·69	202	164			
d Clongowes Wood College. . . . .	The Principal. . . . .	8	1	0	246	808	31·81	226	150			
3.—BOYNE. 76 sq. mi.												
DUBLIN. (Area, 354 sq. mi.)												
1.—VARTRY & C. 23 sq. mi.												
d Shankill (Sherrington) . . . . .	Lt. Col. J. C. W. Erck . . . .	5	1	0	115	792	31·17	177	129			
d Carrickmines (Claremount) . . .	John Read, Esq. . . . .	5	0	11	300	790	31·11	..	..			
d Ballybrack (Marino) . . . . .	Late Rt. Hon. L.A.Waldron . .	5	3	6	..	704	27·70	162	117			
2.—LIFFEY & C. 188 sq. mi.												
d Glen-na-Smoel (Rathmines WW)	Dublin Corporation . . . . .	5	1	0	510	945	37·19	269	186			
d Ballyboden (Rathmines W. W.)	W. H. Lambert, Esq. . . . .	5	1	0	344	811	31·93	220	152			
d Stillorgan (Farmleigh) . . . . .	T. Jackson, Esq. . . . .	5	1	1	220	863	33·99	238	155			
d Kingstown (Harbour Yard) . . .	Office of Public Works . . .	8	1	0	44	816	32·11	163	135			
d Rathfarnham Castle. . . . .	Rev. E. J. O'Reilly. . . . .	8	1	0	175	861	33·89	199	128			
d Belgard Castle . . . . .	Capt. A. F. Maude . . . . .	5	1	0	400	779	30·65	227	153			
d Monkstown (Pakenham Road) .	Rev. J. W. Dunlea* . . . . .	5	0	10	45	835	32·88	193	141			
d Rathmines (Neville Road) . . .	T. H. Mason, Esq. . . . .	5	6	0	100	752	29·62	186	147			
d Harold's Cross (Westfield Park)	F. P. Dixon, Esq., C.E. . . .	5	0	9	125	650	25·58	192	136			
d Harold's Cross (Pretoria Terrace)	E. H. Cannon, Esq. . . . .	5	0	11	155	659	25·93	217	131			
d Donnybrook (Belmont Avenue)	Douglas Waring, Esq. . . . .	5	0	9	100	825	32·49	194	136			
d Donnybrook (Anglesea Road) .	F. C. D. Joynt, Esq. . . . .	5	1	0	30	728	28·67	195	132			
d Clondalkin (Cheeverstown) . . .	Miss M. Love . . . . .	5	..		..	679	26·75	241	155			
d Dublin (FitzWilliam Square) . .	Sir J. W. Moore, M.D. . . .	8	1	6	54	724	28·51	226	142			
d Dublin (Trinity College) . . . .	Prof. W. E. Thrift . . . . .	8	1	0	13	701	27·58	220	142			
d Dublin (Phoenix Park) . . . . .	Ordnance Survey Office . . .	8	1	0	156	766	30·16	220	161			
d Glasnevin (Roy.Botanic Gdns.)	Sir F. W. Moore . . . . .	8	1	0	55	780	30·71	262	161			
d Sutton (Tower Cottage) . . . . .	J. P. Campbell, Esq. . . . .	5	1	0	30	651	25·62	..	..			
d Howth Castle . . . . .	J.GaisfordSt.Lawrence, Esq. .	5	1	9	35	758	29·86	204	147			
3.—NANNY, DELVIN & C. 142 sq. mi.												
d Malahide (Seamount) . . . . .	J. G. Jameson, Esq. . . . .	5	1	0	150	774	30·46	209	154			
d Malahide (Broadmeadow) . . . .	A. J. Neill, Esq.* . . . . .	5	1	6	25	699	27·50?	..	..			
d Lusk (Nevitt) . . . . .	W. Monks, Esq.* . . . . .	5	1	0	139	778	30·64	209	135			
d Skerries (Milverton Hall) . . . .	Capt. E. G. Woods . . . . .	5	1	6	190	807	31·77	230	149			
d Balbriggan (Ardgillan) . . . . .	No. 1 Capt. E. R. Taylor . . .	5	1	0	211	844	33·24	237	149			
4.—INSULAR. 1 sq. mi.												
d Lambay Island . . . . .	Hon. Cecil Baring . . . . .	5	1	0	20	755	29·73	194	141			

\* Per Irish Rainfall Association.

## DIVISION XXI.—LEINSTER—(con.).

STATIONS.	AUTHORITIES.	Rain Gauge.				Depth of Rain.		Days with	
		Diam.	Height above		Sea Level.	1923		·01 in. or more.	·04 in. or more.
		in.	ft.	in.	ft.	mm.	in.		
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	1000	39·38	232	193
3.—NANNY, DELVIN & C. 150 sq. mi.									
4.—BOYNE. 560 sq. mi.									
D Summerhill House .....	Mr. W. Lauder.....	5	1	0	372	944	37·18	209	173
Dunsany Castle Gardens .....	Mr. J. B. Pow .....	5	0	9	323	921	36·24	245	168
D Athboy (Mitchelston) .....	W. J. Hopkins, Esq.....	5	1	0	260	959	37·77	250	188
D Athboy (Frankville) .....	Mrs. C. Coghill.....	8	1	3	227	1026	40·39	227	181
D Navan (Staffordstown) .....	R. J. Butler, Esq. ....	5	1	0	250	871	34·29	226	170
D Drogheda (Mornington) .....	W. Brydon Hill, Esq. ....	5	1	6	60	774	30·49	209	139
D Kelis (Headfort) .....	The Marquis of Headfort..	8	0	8	227	958	37·71	234	175
5.—DUNDALK BAY. 95 sq. mi.									
WESTMEATH. (Area, 712 sq. mi.)									
1.—SHANNON—Left Bank Tributaries. 517 sq. mi.									
D Athlone .....	Office of Public Works ...	5	2	0	132	725	28·53?	215	157
D Athlone (Twyford House) .....	J. P. Hodson, Esq.* .....	5	1	0	187	1035	40·75	241	..
D Streamstown (Windmill) .....	F. W. Jeeves, Esq.....	5	1	6	..	919	36·18	232	182
D Moate (Coolatore) .....	H. A. S. Upton, Esq. ....	5	1	6	369	859	33·82	262	181
D Mullingar (Belvedere House)...	Mr. J. Bayliss .....	5	1	0	367	1026	40·39	245	174
D Mullingar (Ballynegall Gardens)	Major Hawkesworth Smyth	5	2	0	340	1027	40·45	251	188
D Rathowen (Cromlyn) .....	(R) Maj.-Gen. J. P. Battersby, CB	8	1	6	298	976	38·41	249	186
D Castlepollard (Gillardstown Ho.)	W. Hardy, Esq.* .....	5	1	0	290	903	35·53?	..	..
D Castlepollard (Pakenham Hall)	Mr. W. Allan .....	5	1	6	300	1041	41·00	231	189
2.—BOYNE. 195 sq. mi.									
LOUTH. (Area, 316 sq. mi.)									
1.—BOYNE. 32 sq. mi.									
2.—DUNDALK BAY & C. 264 sq. mi.									
D Dundalk (Ballymacallet) .....	M. Sellars, Esq., C.E. ....	5	2	3	207	1112	43·79	..	..
D Dundalk (Aughneskea Res.) ...	M. Sellars, Esq., C.E. ....	5	1	3	670	1222	48·10	205	177
3.—CARLINGFORD LOUGH. 20 sq. mi.									
Greenore .....	T. Chambers, Esq., C.E. ...	5	1	0	20	965	37·98	189	160
LONGFORD. (Area, 424 sq. mi.)									
1.—ERNE. 61 sq. mi.									
2.—SHANNON—Left Bank Tributaries. 363 sq. mi.									
D Ballymahon (New Castle) .....	Lt.-Col. W. A. King-Harman	5	2	5	200	1036	40·77	241	184
D Longford (The Rectory) .....	Rev. H. Justice .....	5	1	0	185	1010	39·77	238	181
D Cloondrah .....	Office of Public Works ...	5	2	0	132	690	27·15?	242	152
D Castle Forbes Gardens .....	The Earl of Granard.....	8	1	0	161	999	39·32	261	180

## DIVISION XXII.—CONNAUGHT.

GALWAY. (Area 2377 sq. mi.)

1.—ERIFF &amp; C. 141 sq. mi.

2.—GALWAY BAY NORTH. 277 sq. mi.

\* Per Irish Rainfall Association.

## DIVISION XXII.—CONNAUGHT—(con.).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain.		Days with ·01 in. or more.	Days with ·04 in. or more.	
		Diam.	Height Ground	above Sea Level.	1923				
GALWAY—(con.).		in.	ft.	in.	ft.	mm.	in.		
3.—CORRIB. 846 sq. mi.									
D Galway (Waterdale) .....	L. R. Reed, Esq.....	5	0	10	25	1153	45·39	245	197
D Ballynahinch Castle .....	R. Berridge, Esq. ....	5	1	9	41	2125	83·65	309	270
Tuam (Gardenfield) .....	R. J. Kirwan, Esq., C.E. .	5	1	0	155	1146	45·12	..	..
4.—GALWAY BAY, SOUTH. 281 sq. mi.									
5.—SHANNON—Right Bank Tributaries. 803 sq. mi.									
Killimor (Ramore).....	Miss N. Macdermott.....	5	1	0	220	982	38·67	220	185
Ahascragh (Clonbrock).....	The Lady Clonbrock.....	10	5	6	198	1071	42·17	195	175
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	1	0	160	1000	39·38	201	160
D Jamestown (Albert Lock) .....	Office of Public Works ..	5	2	0	146	669	26·347	214	148
MAYO. (Area, 2149 sq. mi.)									
1.—SLIGO BAY. 10 sq. mi.									
2.—MOY & C. 797 sq. mi.									
Castlebar House .....	A. C. Larminc, Esq. ....	5	3	0	51	1470	57·88	289	224
d Swinford Rectory .....	Rev. F. T. Cockle.....	5	1	3	160	1295	51·00	..	..
D Ballina (Mount Falcon) .....	Capt. U. A. F. Knox.....	12	3	6	63	1403	55·24	266	220
D Crossmolina (Enniscoe) .....	J. Pratt, Esq.....	5	0	11	74	1742	68·59	300	264
3.—BLACKSOD BAY & C. 411 sq. mi.									
4.—CLEW BAY. 254 sq. mi.									
D Westport House .....	The Marquess of Sligo ....	5	1	0	35	1444	56·86	265	241
d Mallarany .....	M. C. Forbes, Esq.....	5	1	0	128	2096	82·53	..	235
5.—ERIFF & C. 121 sq. mi.									
D Aasleagh House .....	The Marquess of Sligo ....	5	1	0	30	2864	112·75	306	260
D Delphi Lodge .....	The Marquess of Sligo ....	5	1	0	110	3216	126·60	297	267
6.—CORRIB. 432 sq. mi.									
Cong (The Glebe) .....	Late Rev. Canon Lynn....	5	1	11	112	1292	50·88	..	..
Ballinrobe (Creagh House).....	H. H. C. Knox, Esq.....	5	1	0	103	1282	50·49	..	..
7.—SHANNON—Right Bank Tributaries. 35 sq. mi.									
8.—INSULAR. 89 sq. mi.									
SLIGO. (Area, 716 sq. mi.)									
1.—DROWES & C. 49 sq. mi.									
2.—SLIGO BAY. 444 sq. mi.									
D Collooney (Markree Obsy) .....	J. R. Armstrong, Esq.....	5	1	0	122	1346	52·98	283	237
D Sligo (Ard-na-veagh) .....	R. J. Kirwan, Esq., C.E....	5	1	0	90	1377	54·21	283	231
3.—MOY & C. 166 sq. mi.									
4.—SHANNON—Right Bank Tributaries. 56 sq. mi.									
5.—INSULAR. 1 sq. mi.									

## DIVISION XXII.—CONNAUGHT—(con.).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain.  1923	Days with ·01 in. or more.	Days with ·04 in. or more.		
		Diam.	Height Ground	above Sea Level.					
LEITRIM. (Area, 615 sq. mi.)		<i>in.</i>	<i>ft.</i>	<i>in.</i>	<i>ft.</i>	<i>mm.</i>	<i>in.</i>		
1.—ERNE. 152 sq. mi.									
2.—DROWES & C. 85 sq. mi.									
3.—SLIGO BAY. 135 sq. mi.									
4.—SHANNON—Right Bank Tributaries. 47 sq. mi.									
5.—SHANNON—Left Bank Tributaries. 196 sq. mi.									
D Ruskey .....	Office of Public Works ...	5	2	0	141	602	23·70?	243	174
D Drumshanbo(LoughAllenSluice)	Office of Public Works....	5	2	0	169	1101	43·36	261	198

## DIVISION XXIII.—ULSTER.

CAVAN. (Area, 753 sq. mi.)									
1.—ERNE. 489 sq. mi.									
d Crossdoney (Kevit Castle) .....	F. P. Smith, Esq. ....	4	2	0	211	956	37·64	247	180
d Killeshandra (Castle Hamilton)	Major W. J. Hamilton ...	5	1	0	251	1006	39·62	..	168
d Ballyhaise (Agricultural Stn.) ..	J. M. Duke, Esq. ....	5	1	0	206	1001	39·39	257	191
d Belturbet (Cloverhill) .....	Mrs. Sanderson .....	5	1	0	202	869	34·20	244	182
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 Enniskillen (Florence Court) .....	Robt. Hanna, Esq. ....	5	1	5	169	1331	52·41	279	203
d Enniskillen (Portora School) ..	W. N. Tetley, Esq. ....	5	1	0	251	1121	44·13	..	..
d Belleek (Heronshaw) .....	T. Beacom, Esq. ....	5	1	2	150	1328	52·28	..	..
2.—DROWES & C. 46 sq. mi.									
MONAGHAN. (Area, 498 sq. mi.)									
1.—ERNE. 208 sq. mi.									
2.—DUNDALK BAY. 132 sq. mi.									
3.—BANN—Lough Neagh, West. 158 sq. mi.									
d Monaghan (Workhouse) .....	Dr. J. Campbell Hall .....	5	1	0	240	953	37·50		171
ARMAGH. (Area, 514 sq. mi.)									
1.—DUNDALK BAY. 118 sq. mi.									
2.—CARLINGFORD LOUGH. 23 sq. mi.									
d Bessbrook (The Woodhouse) ..	J. S. W. Richardson, Esq. .	5	1	0	260	1077	42·39	245	188
3.—BANN—Lough Neagh, East. 37 sq. mi.									
d Lurgan (Belle Vue) .....	S. A. Bell, Esq. ....	5	0	5	200	807	31·76	243	182
4.—BANN, UPPER. 144 sq. mi.									
d Tanderagee (The Square) .....	Dr. J. Taylor .....	5	1	6	198	933	36·72		..
5.—BANN—Lough Neagh, West. 192 sq. mi.									
d Armagh Observatory .....	(+A) The Meteorological Office .	8	1	0	204	911	35·86	257	182
d Richhill (Sandymount) .....	Mrs. C. B. Lamb .....	5	1	6	200	801	31·52	238	206

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain. 1923	Days with ·01 in. or more.	Days with ·04 in. or more.		
		Diam.	Height above Sea Level.	ft.					
DOWN. (Area, 961 sq. mi.)		in.	ft.	in.	ft.	mm.	in.		
<b>1.—CARLINGFORD LOUGH. 104 sq. mi.</b>									
d Warrenpoint (Clonallon) . . . . .	Lt.-Col. A. W. Mansergh . . . . .	5	1	3	15	976	38·42	247	182
d Newry (Bridge Street Ho.) . . . . .	C. Blaney, Esq. . . . .	5	1	0	23	1143	44·98	193	168
<b>2.—DUNDRUM BAY &amp; C. 173 sq. mi.</b>									
d Annalong (Belfast W.W.) . . . . .	C. F. Wheeler, Esq., C.E. . . . .	5	2	9	435	1225	48·25	203	179
d Mourne Mount'ns (Fofanny Res.) . . . . .	J. H. H. Swiney, Esq., C.E. . . . .	5	1	0	938	1666	65·60	235	191
d Seaforde . . . . .	W. Allan, Esq. . . . .	8	0	5	180	1250	49·22	232	192
<b>3.—STRANGFORD LOUGH. 260 sq. mi.</b>									
d Saintfield House . . . . .	Rev. E. H. Blackwood-Price . . . . .	5	0	9	300	1134	44·63	272	187
d Newtownards (Scrabo Hill) . . . . .	Newtownards U.D.C. . . . .	..	1	6	540	930	36·60	..	191
<b>4.—COAST STREAMS. 47 sq. mi.</b>									
d Donaghadee (Coastguard Stat.) . . . . .	The Meteorological Office . . . . .	8	1	0	85	907	35·69	246	167
d Donaghadee (Craigmore) . . . . .	Dr. S. B. Coates . . . . .	5	1	0	60	885	34·83	250	155
<b>5.—BELFAST LOUGH. 206 sq. mi.</b>									
d Waringstown . . . . .	W. J. Gibson, Esq. . . . .	5	1	0	187	857	33·74	251	185
d Waringstown . . . . .	W. J. Gibson, Esq. . . . .	3	4	5	190	805	31·69	..	..
d Waringstown . . . . .	W. J. Gibson, Esq. . . . .	8	0	8	187	889	35·01	..	..
d Bangor (Chorlton) . . . . .	C. T. Ingold, Esq. . . . .	7	0	11	67	953	37·50	..	..
<b>6.—BANN—Lough Neagh, East. 7 sq. mi.</b>									
<b>7.—BANN, UPPER. 162 sq. mi.</b>									
d Banbridge (Observatory) . . . . .	Mr. H. D. Fleming . . . . .	5	1	6	210	842	33·14	265	172
d Banbridge (Milltown) . . . . .	J. E. Kennedy, Esq. . . . .	5	1	0	200	846	33·31	241	176
d Banbridge (Millbank) . . . . .	Mr. J. W. Mulligan . . . . .	5	1	0	257	885	34·86	248	170
d Portadown (Moyallon House) . . . . .	Mr. J. Lynas . . . . .	5	0	5	130	1009	39·71	245	187
<b>8.—INSULAR. 2 sq. mi.</b>									
ANTRIM. (Area, 1193 sq. mi.)									
<b>1.—BELFAST LOUGH. 107 sq. mi.</b>									
d Lisburn (Ulster Provincial Sch.) . . . . .	J. Woolman, Esq. . . . .	5	1	6	208	1282	50·46	268	213
d Belfast (Queen's University) . . . . .	Mr. G. Robinson . . . . .	5	1	0	62	1154	45·42	252	186
d Belfast (Cave Hill Road) . . . . .	Miss C. Firth . . . . .	5	1	0	200	1206	47·48	300	225
d Belfast (Sewage Outfall Wks.) (R) . . . . .	H. A. Cutler, Esq., C.E. . . . .	8	3	0	26	1070	42·14	254	184
d Belfast (Oldpark Filters) . . . . .	C. F. Wheeler, Esq., C.E. . . . .	5	3	6	203	1221	48·08	249	188
d Whiteabbey (Knockinagh) . . . . .	H. Chisholm, Esq. . . . .	5	1	0	200	1097	43·19	261	198
d Carrickfergus (Dorisland) . . . . .	C. F. Wheeler, Esq., C.E. . . . .	5	3	0	250	1046	41·19	249	191
d Carrickfergus (South Woodburn) . . . . .	C. F. Wheeler, Esq., C.E. . . . .	5	3	0	640	1282	50·47	261	199
d Carrickfergus (North Woodburn) . . . . .	C. F. Wheeler, Esq., C.E. . . . .	5	3	0	737	1275	50·21	262	196
d Carrickfergus (Copeland) . . . . .	C. F. Wheeler, Esq., C.E. . . . .	5	3	0	424	962	37·86	240	173
d Carrickfergus (Lough Mourne) . . . . .	C. F. Wheeler, Esq., C.E. . . . .	5	3	0	596	1127	44·36	241	194
<b>2.—GLENARM &amp; C. 186 sq. mi.</b>									
d Larne (Sallagh Springs) . . . . .	W. G. Younger, Esq. . . . .	5	1	0	566	1396	54·97	254	228
d Glenarm Castle . . . . .	Mr. J. Smith . . . . .	5	1	0	70	1250	49·20	247	215
<b>3.—BUSH &amp; C. 193 sq. mi.</b>									
d Ballycastle (Magherintemple) . . . . .	R. Casement, Esq. . . . .	5	1	7	220	1413	55·64	..	..
d Ballycastle (Sheskburn) . . . . .	Rev. E. F. Campbell . . . . .	5	0	11	10	1309	51·55	287	224
<b>4.—BANN, LOWER. 112 sq. mi.</b>									
<b>5.—BANN—Lough Neagh, East. 590 sq. mi.</b>									
d Stonyford (Belfast W.W.) . . . . .	C. F. Wheeler, Esq., C.E. . . . .	5	1	6	437	1004	39·53	223	199
d Ballymena (Harryville) . . . . .	J. R. Williams, Esq. . . . .	5	1	5	150	1256			

## DIVISION XXIII.—ULSTER—(con.).

STATIONS.	AUTHORITIES.	Rain Gauge.				Depth of Rain.		Days with ·01 in. or more.	Days with ·04 in. or more.
		Diam.	Height Ground	above Sea Level.		1923			
LONDONDERRY. (Area, 816 sq. mi.)		in.	ft.	in.	ft.	mm.	in.		
<b>1.—LOUGH SWILLY. 6 sq. mi.</b>									
Londonderry (Dunruadh) .....	J. H. Welch, Esq. ....	5	0	6	130	1228	48·33	283	228
<b>2.—BUSH &amp; C. 9 sq. mi.</b>									
<b>3.—BANN, LOWER. 240 sq. mi.</b>									
<b>4.—BANN—Lough Neagh, West. 196 sq. mi.</b>									
<b>5.—FOYLE &amp; C. 365 sq. mi.</b>									
M Glenedra (Spelhoagh Mountain) ..	M. A. Robinson, Esq., C.E. .	5	1	0	1333	1800	70·87	..	..
D Glenedra Hill. ....	M. A. Robinson, Esq., C.E. .	5	1	0	1333	1930	76·00	281	260
D Glenedra Lodge .....	(+A) M. A. Robinson, Esq., C.E. .	5	1	0	950	1682	66·23	281	240
D Londonderry (Creggan Res.) ..	Mr. W. Hutchinson. ....	8	1	0	325	1314	51·73	317	265
D Limavady (Dogleap) .....	Miss D. Robertson .....	5	1	0	146	1052	41·40	273	224
Limavady (Drenagh) .....	M. M. McCausland, Esq. .	5	1	6	80	1038	40·85	280	206
Bellarena .....	Sir F. G. Heygate, Bt.*...	5	1	0	7	1152	45·34	251	..
TYRONE. (Area, 1257 sq. mi.)									
<b>1.—ERNE. 46 sq. mi.</b>									
<b>2.—BANN—Lough Neagh, West. 442 sq. mi.</b>									
d Donaghmore .....	Messrs. McClintons, Ltd. .	5	1	3	260	1133	44·62	..	187
D Tullyhogue (Rockdale House) ..	Major R. Stevenson. ....	5	1	0	275	1199	47·22	266	212
<b>3.—FOYLE. 769 sq. mi.</b>									
D Omagh (Edenfel) .....	Lt.-Col. J. B. Buchanan ..	8	1	0	280	1270	50·00	280	220
D Newtown Stewart (Barons Court) ..	Mr. R. Bell .....	5	1	0	250	1173	46·20	279	221
D Sion Mills (Sion House) .....	Capt. J. C. Herdman .....	5	3	0	100	1216	47·86	274	224
DONEGAL. (Area, 1875 sq. mi.)									
<b>1.—DONAGH &amp; C. 146 sq. mi.</b>									
D Malin Head .....	The Meteorological Office..	8	1	3	71	1091	42·96	286	223
<b>2.—LOUGH SWILLY. 273 sq. mi.</b>									
D Letterkenny (Mental Hospital) ..	E. E. Moore, Esq., M.D. .	5	1	0	183	1348	53·07	291	230
D Rathmullen (Fort Royal) .....	late Col. C.A.S. Montgomery	5	1	4	35	1406	55·35	..	..
<b>3.—SHEEPHAVEN &amp; C. 307 sq. mi.</b>									
D Milford (The Manse) ..	Rev. W. J. Young .....	5	1	6	150	1301	51·21	276	231
D Dunfanaghy (St. Helen's) .....	J. J. MacGrath, Esq., M.D.	8	0	9	50	1219	47·99	265	234
<b>4.—GWEEBARRA &amp; C. 341 sq. mi.</b>									
D Narin (Kiltoorish) .....	Lt.-Col. C. P. H. Gardner..	5	1	6	100	1353	53·26	302	250
<b>5.—DONEGAL BAY. 322 sq. mi.</b>									
D Killybegs (Rockmount) .....	Com. G. G. Philipps, R.N..	5	1	0	65	2035	80·12	288	248
<b>6.—ERNE. 68 sq. mi.</b>									
<b>7.—DROWES &amp; C. 10 sq. mi.</b>									
<b>8.—FOYLE. 396 sq. mi.</b>									
<b>9.—INSULAR. 12 sq. mi.</b>									

\* Per Irish Rainfall Association.



# BRITISH RAINFALL 1923.

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PART IV.

## FLUCTUATIONS OF ANNUAL RAINFALL ; A COMPARISON OF 35 YEAR RAINFALL AVERAGES OVER THE BRITISH ISLES FOR DIFFERENT GROUPS OF 35 YEARS FALLING IN THE PERIOD 1868 TO 1921.

By JOHN GLASSPOOLE, M.Sc., A.I.C.

### INTRODUCTION.

In 1903, when Dr. H. R. Mill commenced the preparation of a series of rainfall maps showing the average annual rainfall of certain counties,\* averages for the 35 years 1868 to 1902 were utilised. Since then, in calculating the average rainfall for any area, it was until recently the practice of the *British Rainfall Organization* to use the most recent 35 years. A series of rainfall maps has thus been prepared using different averages. The maps are mainly on the scale of 2 miles to 1 inch and cover in all about half of the total area of the British Isles. In piecing these maps together it is necessary to make a comparison of the averages for the various groups of 35 years, so that the values may be adjusted to a common standard.

The present paper deals with this comparison. The groups of years considered are 1868 to 1902, 1869 to 1903, and so on up to 1887 to 1921. Although the investigation was primarily undertaken with the needs of map making in mind, results of wider application have been reached, and it is thought that these justify the publication of the paper.

The use of 35 years rather than any other unit is discussed in Section I. In Section II the method employed in the critical examination of the records is emphasized, while in Section III the averages for the various groups are discussed in detail.

### SECTION I.—THE 35 YEAR CYCLE IN RAINFALL.

The 35 year cycle has gained general acceptance amongst meteorologists. In an elaborate monograph† published in 1890 by Dr. Eduard Brückner the existence of a cycle of about 35 years in terrestrial climates was demonstrated, and the cycle traced back nearly 1,000 years. Brückner employed not only rainfall but also statistics from five other sources, viz. (1) The dates of the opening and closing of navigation on Russian rivers, (2) Records of severe winters,

\* "Geological Survey of England and Wales." Water Supply Memoirs for Bedfordshire, Essex, Hampshire, Kent, Lincolnshire, Northamptonshire, Nottinghamshire, Oxfordshire, Suffolk, Surrey, Sussex, Yorkshire (East Riding). Published under the Authority of the Board of Education.

† *Klimaschwankungen seit 1700*, by Dr. Eduard Brückner, Vienna, 1890.

(3) The dates of the vintages in France (which have been recorded for more than three centuries), (4) Details of annual temperature and (5) Sunspot frequency.

In 1905 H. W. Clough critically examined Brückner's results and, supplementing the data, extended the discussion of the cycle to solar phenomena\*. Clough gave epochs of excessive and deficient precipitation since 1700 (substantially in agreement with those of Brückner) as set out in Table I.

TABLE I.—*Meteorological Epochs. Precipitation.*

<i>Europe.</i>		<i>United States.</i>	
Wet.	Dry.	Wet.	Dry.
1701-1705		—	—
	1726-1730		
1741-1745		1740	
	1761-1765		1762
1771-1775		1775	
	1796-1800		1795
1811-1815		1815	
	1831-1835		1836
1846-1850		1848	
	1861-1865		1864
1880		1882	
	1898		1895

It will be seen that for Europe the middle years of the wet periods occurred at intervals of 40, 30, 40, 35 and 32 years, whilst the intervals between the middle years of the dry periods were 35, 35, 35 and 30 years. The mean interval is 35·2 years.

The data collected by the *British Rainfall Organization* have enabled the rainfall of the last 50 years to be studied with greater precision†. For the British Isles as a whole a "general value" for the rainfall of each of these years has been evaluated. The general values indicate a long period fluctuation of rather more than 35 years. The yearly percentage fluctuations are represented graphically in Fig. 1. The long period fluctuation is emphasized by grouping the annual general values in tens, as shown in the lower curve. This curve demonstrates the maximum in the 'seventies, a minimum in the early 'nineties, and a second maximum culminating between 1912 and 1916. The first maximum was more pronounced than the second. The general values for the individual years show an interval of 32 years between the wettest years, 1872 and 1903, and of 35 years

\* *Synchronous variations in Solar and Terrestrial Phenomena. The Astrophysical Journal*, 1905. Vol. XXII, p. 42.

† Q.J.R.Meteor.Soc., Vol. XLIX, 1923, No. 208. "The Fluctuations of Annual Rainfall in the British Isles considered Cartographically," by Carle Salter and J. Glasspoole.

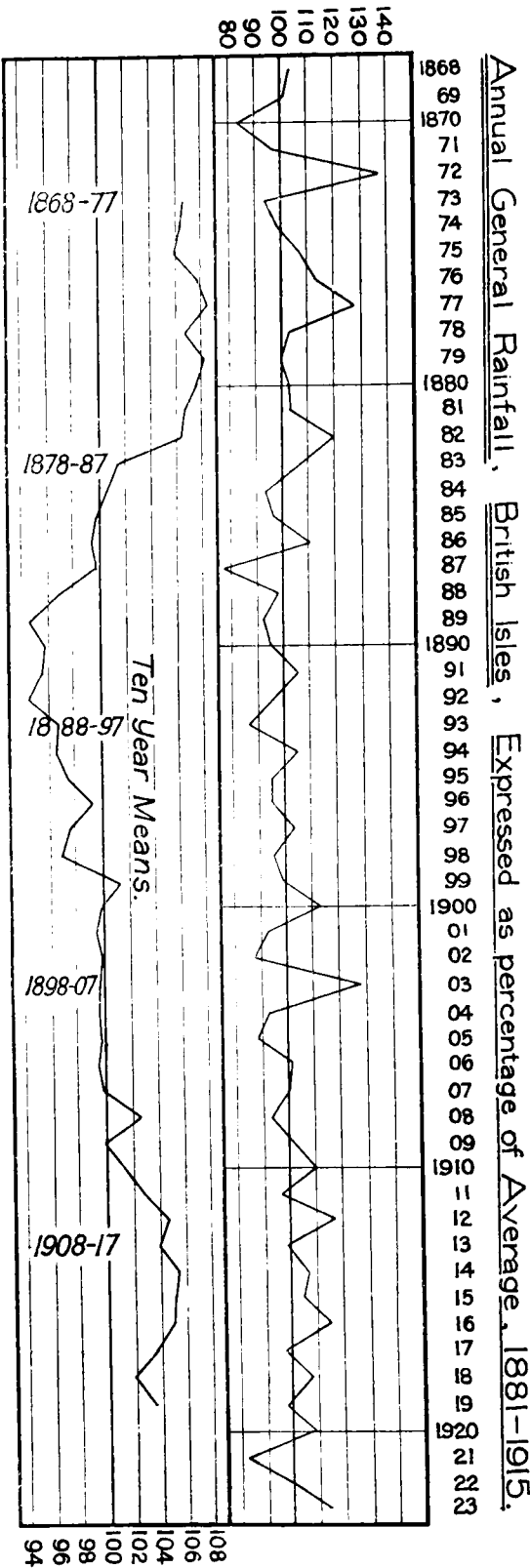


Fig. 1.

between the driest years, 1887 and 1921, both conforming to the cycle. There is no doubt that there was another minimum about 1854 to 1858 and an earlier maximum about 1843 to 1846, though it is not possible to assign values to the general rainfall for the earlier years.

TABLE II.—*Showing the rainfall of the British Isles for each 35 years 1868 to 1921, expressed as a percentage of the average of the 35 years 1881 to 1915.*

<i>Period.</i>	<i>Percentage.</i>	<i>Period.</i>	<i>Percentage.</i>
1868–1902 ..	100·8	1878–1912 ..	99·8
1869–1903 ..	101·5	1879–1913 ..	99·7
1870–1904 ..	101·2	1880–1914 ..	99·9
1871–1905 ..	101·4	1881–1915 ..	100·0
1872–1906 ..	101·5	1882–1916 ..	100·3
1873–1907 ..	100·5	1883–1917 ..	99·7
1874–1908 ..	100·5	1884–1918 ..	99·7
1875–1909 ..	100·5	1885–1919 ..	99·8
1876–1910 ..	100·6	1886–1920 ..	100·2
1877–1911 ..	100·1	1887–1921 ..	99·4

The rainfall of each group of 35 years in the series 1868 to 1921, has also been computed as a percentage of that of the standard period 1881 to 1915. The results are set out in Table II. Each of the first 10 groups of 35 years was wetter than the standard period, and the subsequent 10 groups generally drier than the standard period.

In this paper the average for the period 1881 to 1915 has been used throughout as the standard for comparison. It is to be noted that averages for this period are in general use in the Meteorological Office not only for rainfall but for other elements. It is apparent from Table II. that although the adopted average may be a trifle low, there are other periods of 35 years which have lower values. In fact, for the British Isles as a whole, the average for the period 1881 to 1915 is as near the true normal as that of any other group ending in the last 12 years—the true normal being judged by the fluctuations of rainfall already experienced.

## SECTION II.—PROCEDURE AND CRITICAL EXAMINATION OF THE RECORDS.

To make the investigation as complete as possible practically all the long records of rainfall have been considered. Records from a few stations were omitted because some of them are situated so close together that one was sufficient to represent a group. On the other hand, a few records have been completed by those at neighbouring stations so that as small an area as possible should be unrepresented. In all some 300 records, extending back in nearly every case to 1868, and fairly uniformly distributed over the British Isles, were available for examination.

For every station the sum of the annual amounts of each successive 35 years was evaluated and the series of averages computed. The

average for the group of years 1881 to 1915 was taken as the standard, and all the other averages expressed as a percentage of the value for these years. The percentage values for each 35 years at the various stations were plotted, and maps were thus prepared each showing the relation of the fall of a particular run of 35 years to that of the standard period.

The records used in this paper include those which have been employed previously in the preparation of (a) isomeric maps\* (*i.e.*, maps showing the relation between monthly and annual rainfall), and of (b) the map of mean deviation †(*i.e.*, the map showing in which parts of the country rainfall is more or less variable). Certain records which had been found to give incongruous results in these investigations were again found to be conspicuous, but even when these were rejected the inconsistencies were not entirely eliminated. A systematic examination of the data became necessary.

In the 54 years of observations changes were inevitable. During this time the type of rain-gauge in general use has changed. The deep funnel or Snowdon pattern has been introduced. This pattern undoubtedly gives a truer reading during falls of snow and loss due to over exposure is also minimised. The growth of plants, shrubs and trees may alter the exposure of a rain-gauge, as may the erection of buildings in the vicinity. Records even in the same town may be from very different sites, and the moving of a gauge a short distance frequently gives a totally different exposure. Some of the long records which were to be utilised were known not to be homogeneous (although it was supposed that any inconsistency introduced thereby was negligible), but this more searching investigation showed that in some cases the effect of the discontinuities was appreciable.

In the critical examination of the data use was made of maps showing the rainfall as a percentage of the average (a) for each year and (b) for each consecutive 10 years.

The annual maps showed up inconsistencies such as those due to a leak. The 10 year maps and the 35 year maps made apparent smaller inconsistencies, such as would be caused by a change of exposure. The range of the values over the British Isles was much smaller in the case of the 10 year maps than in that of the annual maps and was smaller still in the case of the 35 year maps. On the annual maps a percentage error of less than 5 would probably escape detection, while on the 10 year maps and on the 35 year maps errors of 3 and 1 per cent. respectively might be detected. The chance of detecting these errors was of course greatest in the areas where records were most numerous. A common type of inconsistency was a gradual increase in the amount of rain recorded in proportion to that at other stations, giving on the

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\* *British Rainfall*, 1914, p. 25.

† *British Rainfall*, 1921, p. 288.

earliest 35 year map (1868 to 1902) a low percentage and on the last map (1887 to 1921) a high one. In many cases this inconsistency could be attributed to a change of position of the rain-gauge.

As an illustration of the critical examination reference may be made to the record at Wisbech in Cambridgeshire. The result obtained from the examination of the percentage values with those from neighbouring stations on the various maps was as below :—

1881-1915. Mean Deviation.	Maps 1868-1921.		
	Annual.	10 years.	35 years.
Apparently correct.	Apparently correct.	Percentage Values too big.  From '68-'77 to '75-'84	Percentage Values too big.  From '68-'02 to '79-'13

On investigation it was found that the gauge had been moved in 1877 from Harecroft House to Bank House, a distance of about 300 yards. A note was made by the observer that the positions were similar, but this was apparently not the case. A comparison of the percentage values for the various groups of 35 years at Wisbech and at adjacent stations is shown in Table III, the doubtful values being in italics. As a result of this investigation the Wisbech record was rejected as not serviceable for our present purpose.

TABLE III.—*Illustrating lack of homogeneity in record at Wisbech for periods 1868/1902—1875/1909 by comparison with surrounding stations.*

			Lincolnshire.	Cambridgeshire.	Norfolk.
			<i>Spalding.</i>	<i>Wisbech.</i>	<i>Swaffham.</i>
1868-1902	..	..	103·3	107·1	102·6
1869-1903	..	..	104·0	107·7	103·5
1870-1904	..	..	103·4	106·6	102·8
1871-1905	..	..	104·3	106·5	102·9
1872-1906	..	..	104·4	106·5	103·2
1873-1907	..	..	103·1	104·4	101·0
1874-1908	..	..	102·8	103·7	100·9
1875-1909	..	..	103·8	104·3	101·4
1876-1910	..	..	103·1	103·3	101·7
1877-1911	..	..	101·6	102·1	101·6
1878-1912	..	..	102·2	102·8	102·0
1879-1913	..	..	101·7	102·1	100·9
1880-1914	..	..	101·4	101·0	100·3
1881-1915	..	..	100·0	100·0	100·0
1882-1916	..	..	100·2	100·5	100·3
1883-1917	..	..	98·9	99·3	99·5
1884-1918	..	..	98·4	98·8	99·0
1885-1919	..	..	99·6	99·3	99·6
1886-1920	..	..	99·6	99·1	98·9
1887-1921	..	..	97·4	97·3	97·6

It was found that 200 sound records remained, and that these alone gave a fairly simple geographical distribution on each of the maps. In Table IV the percentage values as departures from the average, 1881 to 1915, for 60 representative stations, have been set out. In the case of the 35 years, 1881 to 1915, the value is of course in each case zero and this column has consequently been omitted in order to economise space. Only the names of the remaining 140 stations and

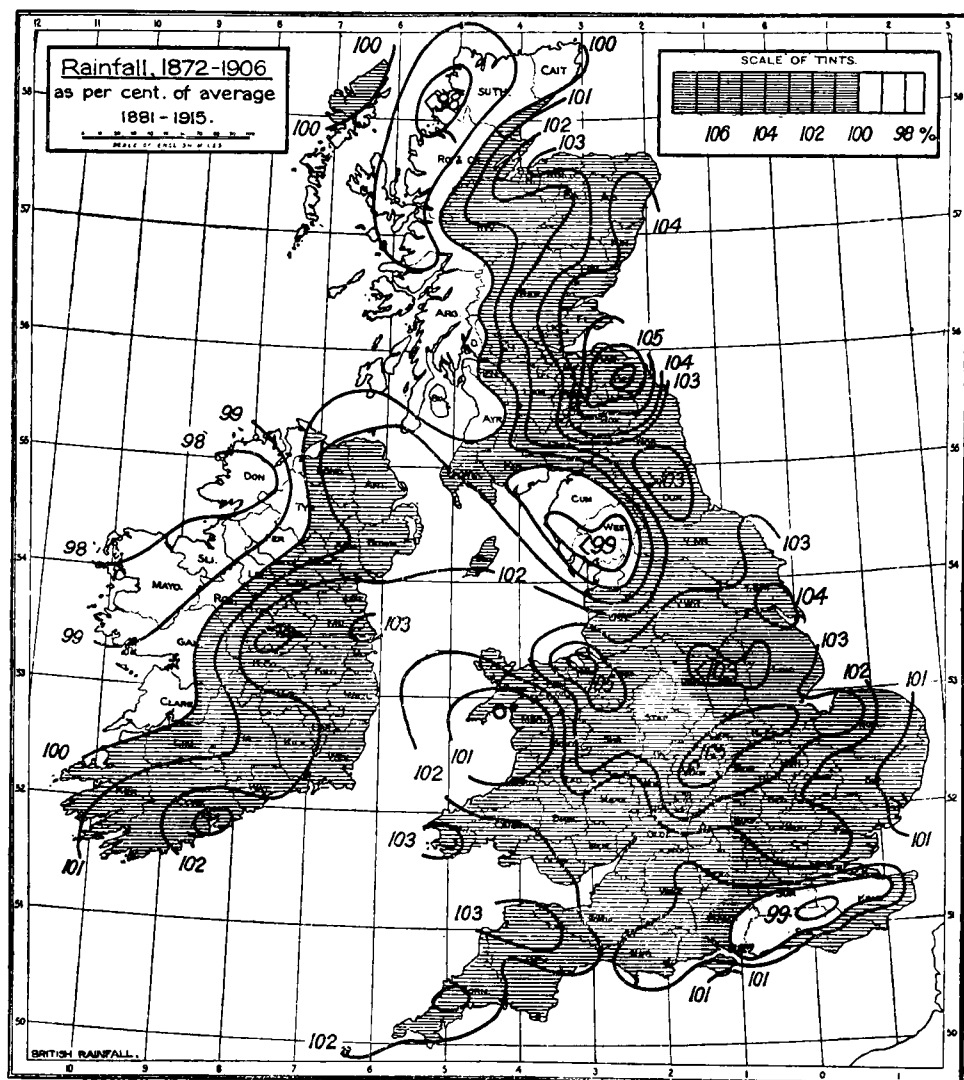


Fig. 2.

the periods utilised in the present paper have been printed in Table V. These two lists of stations and periods are of importance as indicating records which have been critically examined, as explained above, and found to be reasonably consistent with each other.



## SECTION III.—COMPARISON OF AVERAGES OF EACH 35 YEAR PERIOD.

In Table II the mean of each 35 consecutive annual values for the British Isles\* is expressed as a percentage of the average. Maps of the relative fall of the periods (1872 to 1906) and (1887 to 1921) are shown as Figs. 2 and 3. They illustrate the two types of distribution

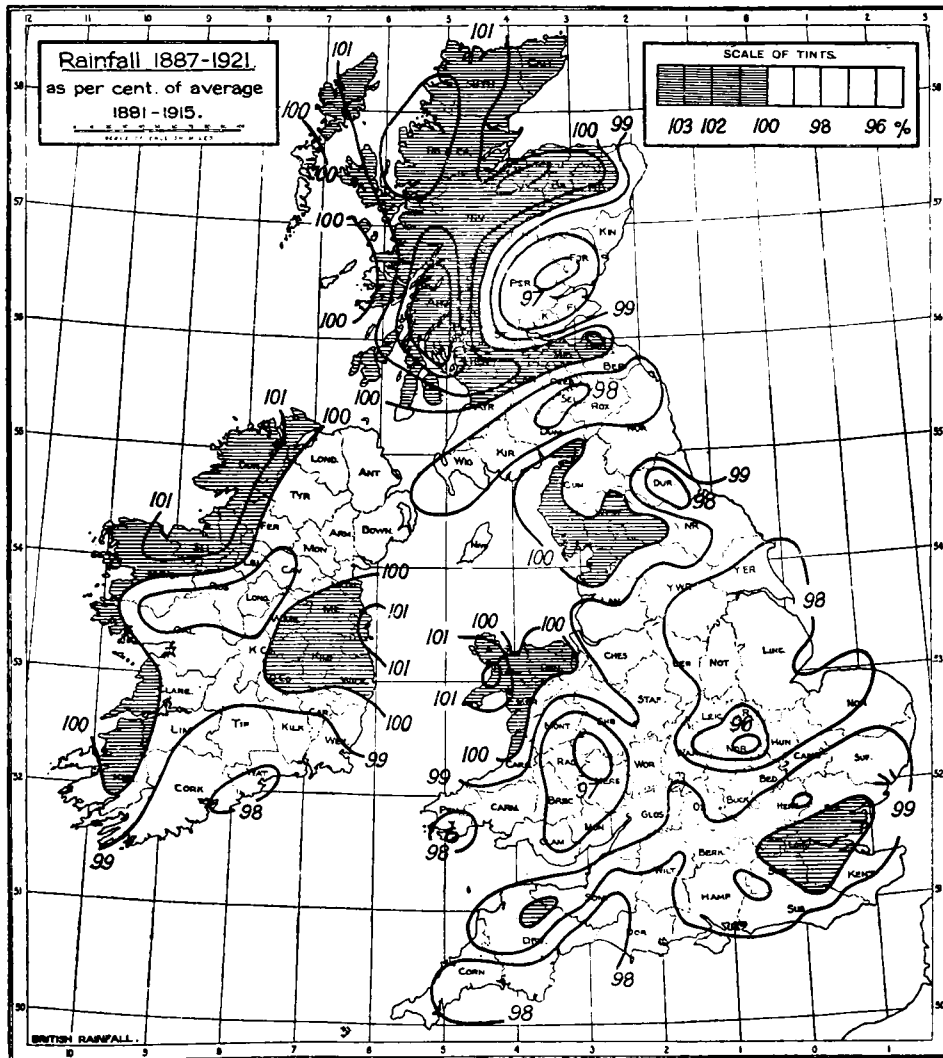


Fig. 3.

found in this series, for, as Table II shows, excessive rainfall characterises the former period and a marked deficiency the latter.

\* See *Meteorological Magazine*, June 1923, p. 103, or this volume p. 119. for the general values for each year.

*A. Rainfall, 1872 to 1906, as per cent. of average, 1881 to 1915.*

The years 1872 to 1883 were noteworthy for the persistent excess of rain both in the central portions of England and along the east coast. The rainfall of these years has controlled to a large extent the distribution of the fall in the 35 years 1872 to 1906. In Fig. 2 the largest excesses occur in the midlands of England and in the east of

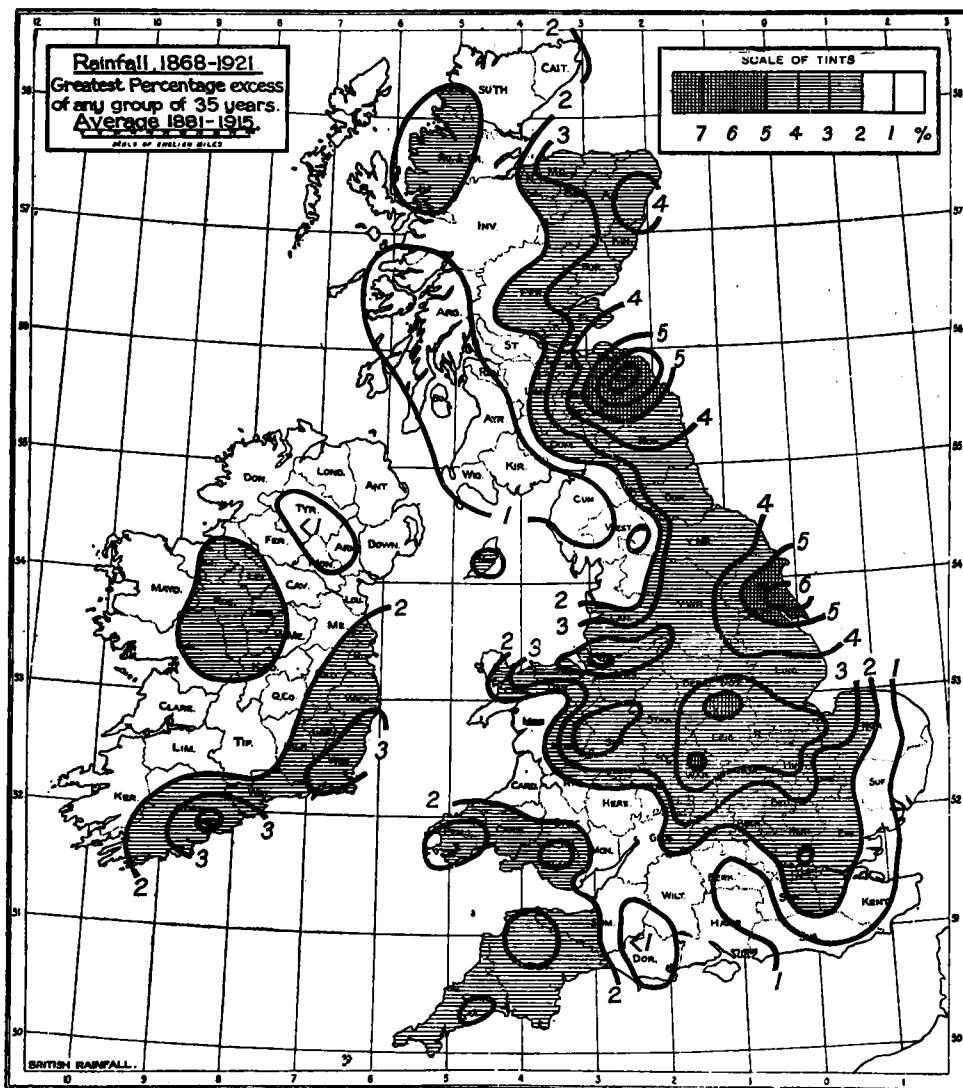


Fig. 4.

Scotland. On the other hand, to the west of Scotland and Ireland, in the English Lake District and in the south-east of England less than the standard rainfall occurred in this period. The deficiencies amounted to as much as 2 per cent. in the west of Scotland and of Ireland. The excesses were much larger but it was only in the south-east of Scotland that the departure from the standard exceeded

6 per cent. The largest excesses were at Marchmont and West Foulden in Berwickshire, and Galashiels in Selkirk, of 7·3, 6·6 and 6·9 per cent. respectively.

*B. Rainfall, 1887 to 1921, as per cent. of average, 1881 to 1915.*

The map showing the rainfall of the 35 years 1887 to 1921, Fig. 3,

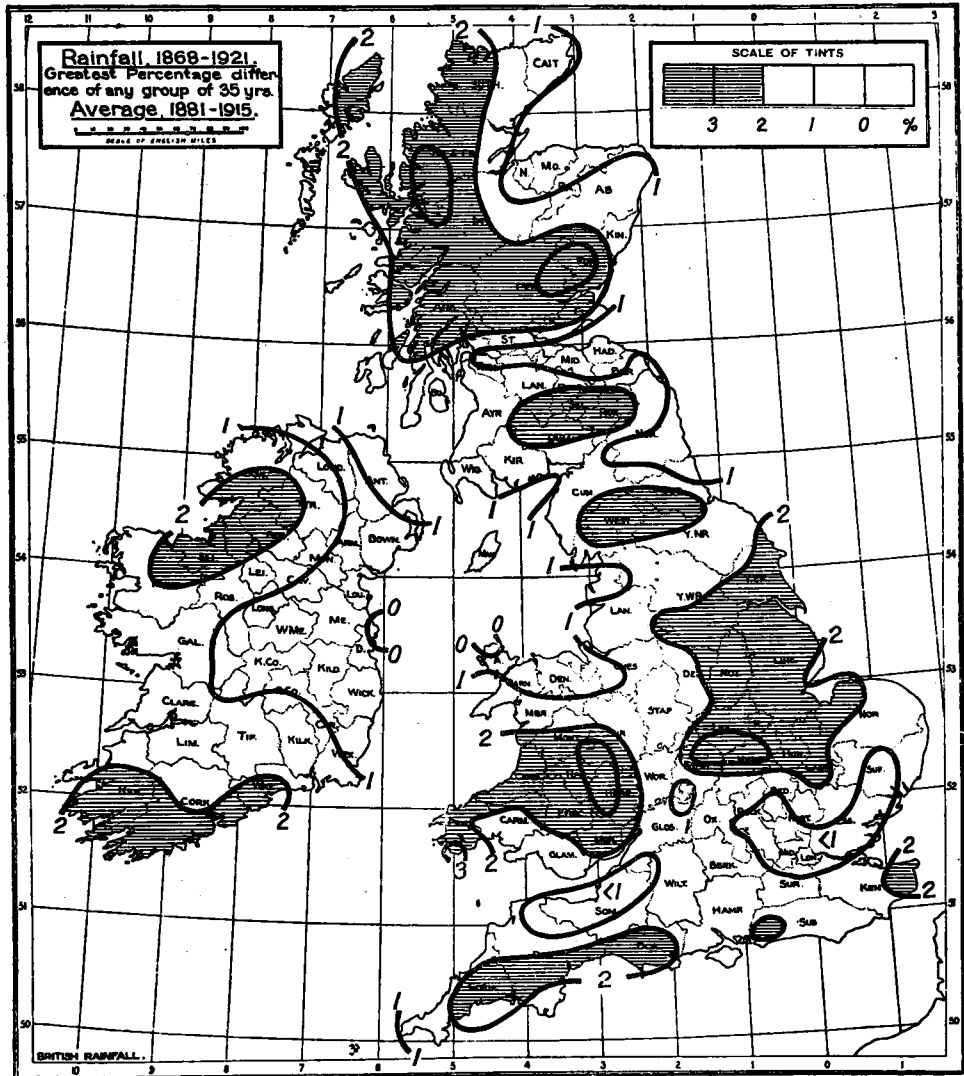


Fig. 5. Greatest percentage deficiency.

is of interest in comparison with Fig. 2. The areas with rainfall below the average in the earlier period experienced excess rainfall in the later period and *vice versa*. The 35 years 1887 to 1921 were 3 per cent. wetter than the standard in Argyllshire, while deficiencies of 3 per cent. occurred in Northampton, Hereford, Forfar and Pembroke.

The intermediate maps show a gradual change from these two extremes as the standard period is approached. In the maps for the years 1880 to 1914 and 1882 to 1916 the departures from the average over practically the whole of the British Isles are less than 1 per cent., the maximum difference being 1·7 per cent. In the whole series of maps the excesses are more prominent than the deficiencies, which is in accord with the statement on p. 239 that in the run of years under consideration, viz., 1868 to 1921, information is available for two maxima and only one minimum.

*C. Extremes and range of 35 year averages at individual stations.*

For each of the 200 stations the percentage in the wettest and driest group of 35 years was noted. The values were plotted as departures from the standard average. Figs. 4 and 5 show the distribution of these departures above and below the average.\* The addition of the two extreme percentage departures for each station gave the range which is shown in Fig. 6. Practically everywhere the values of excesses in Fig. 4 are greater than those of deficiencies in Fig. 5. The large values of 6 per cent. at Hull and in Berwickshire in Fig. 4 are of particular interest. In Fig. 6 attention is focussed on the areas of largest range, viz., parts of Berwickshire, the East Riding of Yorkshire, Warwickshire, Northamptonshire, Shropshire and Cork. Some of the largest ranges are set out below :—

				Per cent.	From.
Galashiels	..	Selkirk	..	9·3	97·6 to 106·9
Coventry	..	Warwick	..	9·0	96·6 to 105·6
Hull	..	Yorks, E.R.	..	8·7	97·5 to 106·2
Marchmont	..	Berwick	..	8·3	99·2 to 107·5
Wellingborough		Northants.	..	8·2	95·6 to 103·8

Thus it appears that during the 54 years 1868 to 1921, thirty-five year averages, at the same station, have differed from one another by as much as 9 per cent. Consequently, in computing the average annual rainfall at stations in certain areas it is of practical importance that attention should be paid to the choice of the thirty-five years.

On the other hand, in certain areas the range is small, being less than 4 per cent. over the greater part of Ireland, the western half of Scotland, and the north-west and south-east of England. In these areas the choice of a particular 35 years out of the years 1868 to 1921 is not of

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\* The map Fig. 5 has been labelled "difference" instead of "deficiency."

much practical importance, and any of the 35 years give a close approximation to the true normal. In the south-west of Scotland, in Suffolk and in Armagh the range is less than 2 per cent.

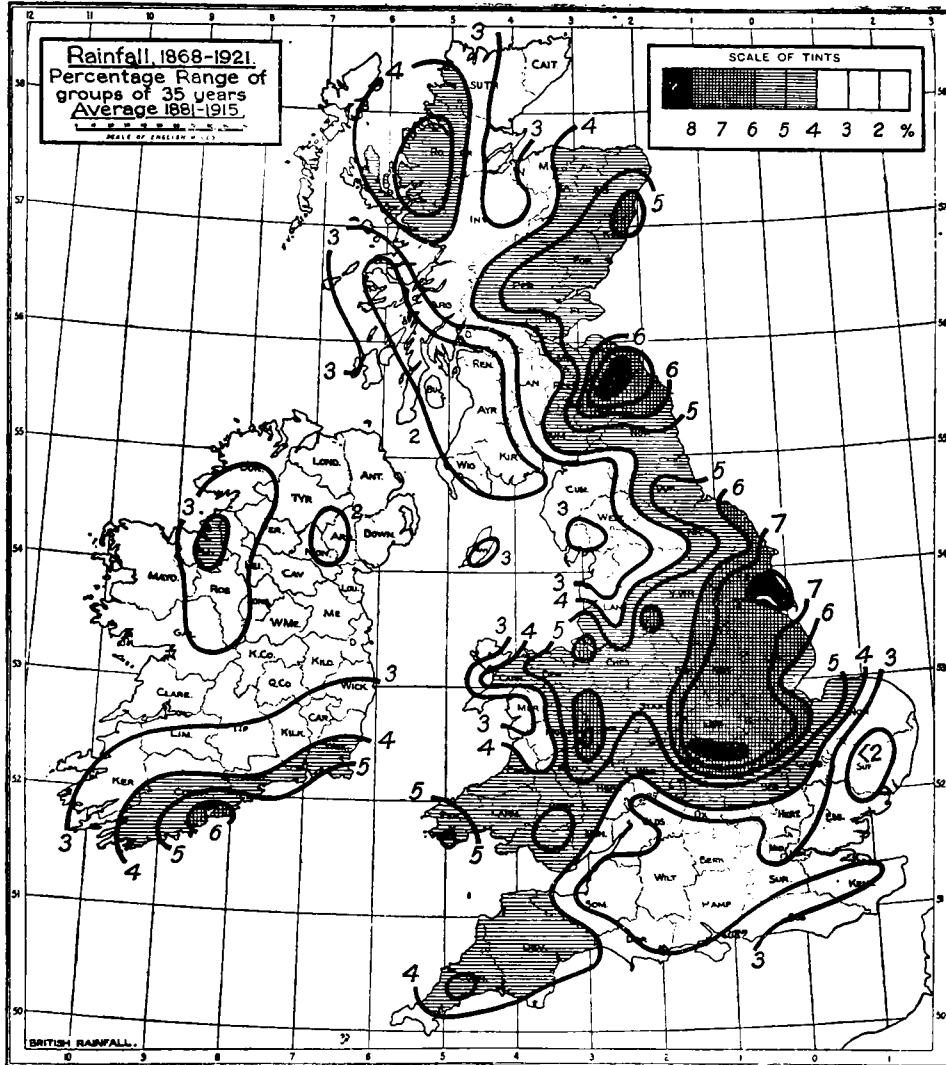


Fig. 6.

*D. Use of the 35 year maps in the rainfall survey.*

An illustration of the change in the computed average, due to the use of different groups of 35 years, is afforded by a comparison of the values published by Dr. H. R. Mill\* for the East Riding of Yorkshire and those published in the Book of Normals.†

\* *Memoir of the Geological Survey*, 1906. The Water Supply of the East Riding of Yorkshire.

† *Book of Normals*, Section V, Meteorological Office Publication, 1924.

Station.	Annual Average Rainfall.	
	1868 to 1902.	1881 to 1915.
	in.	in.
Hull, Pearson Park .. .. .	26·9	25·4
Patrington .. .. .	24·5	23·3
Warter, Pocklington .. .. .	30·3	29·0
Market Weighton, Dalton Hall .. .. .	28·8	28·0
Lowthorpe, The Elms .. .. .	27·7	26·5

It is found that in this area the use of the later average makes near Warter (on the eastern side of the Plain of York) a change of about 2 miles in the position of the 30 inch isohyetal line.

The series of maps for successive groups of 35 years described in this paper will enable all the averages worked up for early periods to be utilised in the preparation of a rainfall map of the British Isles. These maps will indicate where the application of a factor is of practical importance. For example, in the East Riding of Yorkshire Dr. Mill calculated some 65 averages. It is a simple process to correct these averages by the use of the 35 year map for 1868 to 1902. It would be a much more lengthy process to rework the averages from the annual values. Thus the computed average for the years 1868 to 1902 at Hornsea (Elim Lodge) was given by Dr. Mill as 26·8 inches. The 35 year map indicates that the rainfall of this period was 5 per cent. greater than that of the standard period 1881 to 1915. The revised average is therefore 25·5 inches. It is estimated that averages for some 5,000 stations have been computed, using any of the 35 years in the period 1868 to 1921. The maps described in this paper enable these averages to be reduced to one common period, and it is therefore hoped that they will greatly facilitate the preparation of a rainfall survey of the British Isles.

#### SUMMARY AND CONCLUSIONS.

1. In the run of years 1868 to 1921, the averages for various intervals of 35 consecutive years at any station *have shown some variation* :—

- (a) Over half of the British Isles the variation is less than 4 per cent.
- (b) In isolated areas, notably near Marchmont in Berwickshire, Hull in Yorkshire and Wellingborough in Northamptonshire the variation has exceeded 8 per cent.

2. In the years 1868 to 1921, the averages for various intervals of 35 consecutive years at any station *have differed from the standard average, 1881 to 1915* :—

- (a) In general the excesses are larger than the deficiencies.
- (b) Over nearly the whole of the British Isles the departures are less than 4 per cent.

- (c) Departures of from 4 to 7·5 per cent. have occurred but they are confined to small areas of the British Isles.

3. In evaluating the average annual rainfall at stations in the British Isles for periods of 35 years :—

- (a) In certain areas (which have been located) it is immaterial for all practical purposes which of the 35 years (in the period 1868 to 1921) is utilised.
- (b) In certain small areas (which have been located) it is of considerable importance which 35 year period is utilised.
- (c) In general the question has been shown to be of minor importance.

4. Maps have been constructed whereby it is possible to correct average values for any period of 35 years to that of the standard period. So that the large number of averages which have been computed for other 35 year periods can be corrected and utilised for the purpose of a rainfall survey of the British Isles.

I should like to acknowledge that the suggestion to map the percentage of one 35 years of another was due to the late Mr. Carle Salter. In his book, *The Rainfall of the British Isles* (p. 224), he has set out overlapping 35 year averages for 4 stations. It was under his superintendence that the investigation reached the stage where the difficulties of sorting out the reliable from the unreliable figures became apparent.





TABLE IV (con.)—Fall in each group of 35 years in period 1868-1921 as percentage departure from Average 1881-1915.

County.	Station.	'68-'02	'69-'03	'70-'04	'71-'05	'72-'06	'73-'07	'74-'08	'75-'09	'76-'10	'77-'11	'78-'12	'79-'13	'80-'14	'82-'16	'83-'17	'84-'18	'85-'19	'86-'20	'87-'21
<i>Scotland.</i>																				
Dumfries	Moffat (Craigielands)	+	+	+3	+3	+3	+1	+1	+1	0	0	-1	-1	0	0	-1	-1	-2	-2	-2
Berwick	Marchmont House	+7	+7	+7	+7	+7	+5	+5	+5	+4	+3	+2	+1	0	0	0	0	0	0	0
Midlothian	Edinburgh (Charlotte Square)	+4	+4	+5	+5	+5	+4	+4	+4	+4	+2	+1	0	0	+	0	0	0	+1	+1
Ayr	Girvan (Pinnore)	-1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	-1	-1	-1	-1
Renfrew	Gorbals W.W. (Waulk Glen)	0	0	0	+1	+1	+1	0	0	0	0	0	0	0	+	0	0	0	0	+1
Argyll	Islay (Eallabus)	-2	-2	-1	-1	0	0	0	0	0	0	-1	-1	0	0	0	0	0	+	+
Argyll	Lismore (Mousedale)	-3	-2	-1	-1	-1	-2	-2	-2	-2	-1	-1	-1	0	0	-1	-1	-2	-2	-2
Perth	Balquhidder (Stronvar)	+2	+2	+2	+2	+2	0	0	0	0	0	0	0	-1	0	0	0	3	2	3
Aberdeen	Braemar (Bank)	+1	+2	+1	+2	+2	+3	+3	+3	+2	+1	-2	0	-1	0	0	0	-1	-1	-2
Aberdeen	Aberdeen (Cranford House)	+3	+4	+4	+4	+4	+3	+2	+2	+2	+1	0	0	-1	0	-1	-1	-1	-1	-2
Moray	Gordon Castle	+3	+3	+3	+3	+4	+2	+2	+2	+2	+1	0	-1	-1	+	+	+	+	+	+
Inverness	Loch Quoich (Glenquoich)	-3	-2	-1	-1	0	0	0	0	-1	-1	-1	0	0	+	+	+	+	+	+
Ross	Alness (Ardross Castle)	-1	-1	-1	0	+1	+1	0	0	0	0	0	-1	-1	+	+	+	+	+	+
Ross	Stornoway	*	*	*	*	0	-1	-1	-2	-2	-2	-2	-1	-1	+	+	+	+	+	+
Caithness	Wick	*	*	*	*	-1	-1	-1	0	0	-1	-1	-1	0	0	0	0	0	+	+
Orkney	Shapinsay (Balfour Castle)	+2	+2	+1	+2	+2	+1	0	+1	+1	0	0	0	0	0	0	0	0	0	+
<i>Ireland.</i>																				
Cork	Cork (University College)	+4	+4	+4	+4	+3	+1	+1	+1	+1	0	-1	-2	-1	0	-1	-1	-1	-1	-2
Kerry	Valencia (Glanlean)	+	+	+	+	+	+	+	-2	-2	-2	-2	-1	0	0	0	0	0	0	0
Waterford	Clonmel (Glanam)	+1	+2	+2	+2	+1	0	0	0	-1	-1	-1	-1	0	0	-1	-1	-1	-1	-1
Clare	Miltown Malbay	+	+	+	+	+	+	+	-1	-1	-2	-2	-1	0	0	0	0	0	+	+
Wexford	Gorey (Courtown House)	+3	+3	+3	+3	+2	+1	+1	+1	+1	0	0	0	0	0	0	0	0	0	0
Kings	Birr Castle	+1	+2	+2	+2	+2	+1	+1	+1	+1	0	0	0	0	+	+	+	+	+	+
Dublin	Dublin (Fitz William Square)	+2	+2	+2	+2	+2	+1	+1	+1	+1	+1	0	0	0	+	+	+	+	+	+
Mayo	Crossmolina (Enniscoe)	+	+	+	+	+	+	0	0	0	-1	-1	-1	0	+	+	+	+	+	+
Sligo	Collooney (Markree Obsy.)	+	+	-2	-2	-2	-2	-2	-2	-1	-1	-1	-1	0	+	+	+	+	+	+
Cavan	Belturbet (Cloverhill)	+	+	+	+	+	0	0	0	0	+	0	0	0	0	0	0	0	0	0
Armagh	Armagh Observatory	0	+1	+1	+1	+1	0	0	0	0	+	0	0	0	0	0	0	0	0	0
Down	Seaford	-1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-1	0	-1
Londonderry	Garvagh (Moneydig)	+1	+2	+2	+1	+1	0	+1	+2	+1	0	0	0	0	0	-1	-1	0	+1	0
Donegal	Convoy House	+1	+1	+1	+1	+1	0	0	0	0	-1	0	-1	0	+	0	0	-1	0	+
		+	+	*	*	-2	-2	-2	-1	-1	-1	-1	0	0	0	+	+	+	+	+

† No values available.

\* Values rejected.

TABLE V.—Stations and periods of observations ; supplementary list.

County.	Station.	Period.	County.	Station.	Period.
<i>England.</i>					
London	Greenwich (Royal Observatory)	1868-1921	Shrops.	Shifnal (Haughton Hall)	1868-1921
Surrey	Richmond (Kew Observatory)	1868-1921	Shrops.	Oswestry (The Mount Reservoir)	1868-1920
Surrey	Haslemere (Courts Hill)	1868-1921	Worc.	Bromsgrove (Tardebigge Reservoir)	1876-1921
Kent	Selling (Harefield)	1869-1921	Worc.	Northwick Park	1868-1921
Kent	Edenbridge (Falconhurst)	1868-1921	Warwick	Rugby (Caldecott)	1868-1921
Sussex	Brighton (Lewes Road)	1868-1921	Warwick	Coventry (Kingswood)	1868-1921
Sussex	Crowborough (Uckfield Lodge)	1871-1921	Leic.	Kibworth Beauchamp	1868-1921
Hants	Ventnor (Royal National Hospital)	1868-1921	Lincoln	Boston (Black Sluice, Skirbeck)	1868-1921
Hants	Southampton (East Park)	1868-1921	Lincoln	Revesby Reservoir	1874-1921
Berks	Reading (Englefield)	1868-1921	Lincoln	Louth (Westgate)	1868-1921
Herts	Tring (Cowroast Lock)	1868-1921	Lincoln	Brigg	1868-1921
Herts	Much Hadham	1868-1921	Lincoln	Lincoln (Doddington Hall)	1868-1918
Bucks	Newport Pagnell (The Croft)	1868-1921	Derby	Mickleover (Clyde House)	1873-1921
Oxford	Banbury (Bodicote House)	1868-1921	Ches.	Macclesfield (West Park)	1868-1921
Cambs	Stretham Engine	1868-1921	Ches.	Neston (Vine House)	1868-1921
Cambs	Stanground Sluice	1868-1921	Lancs., S.	Bolton (Belmont Reservoir)	1868-1920
Suff.	Walsham-le-Willows	1868-1921	Lancs., S.	Denton Reservoir	1868-1921
Norf.	Worstead (Lyngate Cottage)	1869-1921	Lancs., C.	Stonyhurst College	1868-1921
Wilts	Salisbury Plain (Chitterne House)	1868-1921	Lancs., N.	Cartmel (Holker Hall)	1868-1921
Wilts	Marborough (Mildenhall)	1868-1921	Lancs., N.	Garstang (Grizedale Reservoir)	1868-1921
Dorset	Evershot (Melbury House)	1868-1921	Yorks., W.R.	Rotherham (Moorgate Grange)	1868-1921
Devon, S.	Ashburton (Druid House)	1869-1921	Yorks., W.R.	Malham Tarn	1870-1921
Devon, N.	Okehampton (Oaklands)	1870-1921	Yorks., W.R.	York (Cherry Hill)	1868-1921
Corn.	Penzance (St. Clare)	1868-1921	Yorks., W.R.	Wetherby (Ribston Hall)	1868-1921
Corn.	Altarnon Vicarage	1868-1921	Yorks., W.R.	Pateley Bridge (Castle Stead)	1869-1915
Corn.	Scilly (Tresco Abbey)	1868-1921	Yorks., E.R.	Pocklington (Warter)	1868-1921
Som.	Cothelstone House	1868-1921	Yorks., E.R.	Pattingham	1868-1921
Gloster	Quedgeley House	1868-1921	Yorks., E.R.	Lowthorpe (The Elms)	1873-1921
Gloster	Stroud (Upfield)	1868-1921	Yorks., N.R.	Leyburn (Bolton Hall)	1872-1921
Heref.	Leominster Farm	1868-1921	Yorks., N.R.	Malton (Broughton Rise)	1868-1921
Salop.	Church Stretton (Wolstaston)	1868-1921	Yorks., N.R.	Whitby	1868-1921

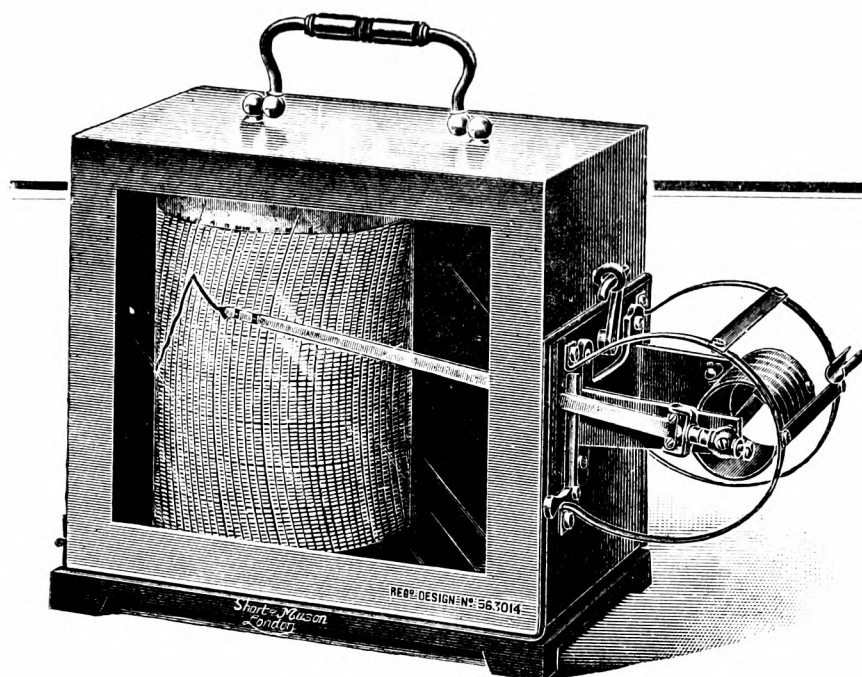
TABLE V (contd.)—Stations and periods of observations; supplementary list.

County.	Station.	Period.	County.	Station.	Period.
<i>England—contd.</i>					
Durham	Wolsingham	1871-1917	Cumbd.	Whitehaven (Irish Street)	1870-1921
Durham	Sunderland (W. Hendon House)	1868-1921	Westd.	Kirkby Stephen (Redman Ho.)	1868-1921
Northd.	Newcastle (Town Moor)	1868-1921	Westd.	Patterdale Hall	1868-1921
Northd.	Howick Hall	1870-1921	Westd.	Appleby (Castle Bank)	1868-1921
Northd.	Ilderton (Lilburn Tower)	1868-1921	Westd.	Rydal (High Close)	1868-1921
Cumbd.	Carlisle (Spital Cemetery)	1868-1921	Westd.	Kendal	1868-1921
Cumbd.	Borrowdale (Seathwaite)	1880-1919			
<i>Wales and Anglesey.</i>					
Glam.	Cowbridge (Fonmon Castle)	1868-1921	Denbigh	Wrexham (Packsaddle Reservoir)	1871-1917
Glam.	Cardiff (Ely P.S.)	1868-1921	Merion.	Corwen (Rûg Gardens)	1876-1921
Glam.	Aberdare (Mardy)	1869-1920	Merion.	Blaenau Festiniog (Oakley)	1868-1921
Carn.	Carmarthen (The Friary)	1868-1921	Merion.	Dolgelly (Bryntirion)	1868-1921
Pembs.	Castle Malgwyn	1868-1917	Carn.	Carnavon (Belan Fort)	1868-1921
Pembs.	Pembroke (Stackpole Court)	1873-1921	Carn.	Llanfairfechan	1868-1921
Pembs.	Aberdare (Nanthir Reservoir)	1875-1921	Carn.	Criccieth (Talarvor)	1868-1915
Radnor	Birmingham W.W. (Nantgwillt)	1870-1921	Anglesey	Holyhead	1875-1921
Mont.	Lake Vyrnwy (Bank Cynon Isaf)	1879-1921	Anglesey	Llwydiarth Esgob.	1868-1921
Flint	Bodfari (Nantlys)	1870-1921			
<i>Scotland.</i>					
Kirk.	Auchencairn (Torr House)	1870-1921	Lanark	Airdrie (Hillend Reservoir)	1868-1921
Dumf.	Canonbie (Byreburnfoot)	1870-1921	Stirl.	Falkirk (Kerse)	1868-1918
Roxb.	Hawick (Branxholme)	1879-1921	Argyll	Mull of Kintyre	1868-1921
Selkirk	Galashiels (Abbotsford Road)	1868-1921	Argyll	Mull (Quinish)	1875-1921
Berwick	West Foulden	1870-1921	Kinross	Loch Leven Sluice	1874-1921
Hadd.	N. Berwick Reservoir	1873-1921	Perth	Loch Venacher	1868-1921
Midl.	Pentland Hills (Glencorse Filters)	1868-1921	Perth	Crieff (Strathearn Hydro)	1868-1921

TABLE V (contd.)—Stations and periods of observations; supplementary list.

County.	Station.	Period.	County.	Station.	Period.
<i>Scotland—contd.</i>					
Perth ..	Perth ..	1868-1915	Moray ..	Grantown-on-Spey ..	1868-1921
Perth ..	Blair Atholl ..	1879-1919	Nairn ..	Cawdor (Budgate) ..	1870-1921
Forfar ..	Kirriemuir (Lintrathen) ..	1875-1921	Inver. ..	Alvie Manse ..	1872-1921
Forfar ..	Montrose (Sunnyside Asylum) ..	1876-1921	Inver. ..	Loch Shiel (Glenfinnan) ..	1868-1917
Kirnc. ..	Fettercairn (Police Station) ..	1868-1921	Ross ..	Applecross Gardens ..	1868-1921
Aberdeen..	Ellon (Esslemont House) ..	1870-1921	Suther. ..	Dunrobin Castle ..	1868-1921
Aberdeen ..	New Deer School ..	1868-1921			
<i>Ireland.</i>					
Kerry ..	Darrynane Abbey ..	1877-1821	Westm. ..	Athlone (Twyford) ..	1870-1918
Waterford..	Waterford (Brook Lodge) ..	1875-1921	Westm. ..	Mullingar (Belvedere) ..	1875-1921
Waterford..	Portlaw (Mayfield) ..	1877-1921	Louth ..	Greenore ..	1875-1921
Tipperary ..	Nenagh (Castle Lough) ..	1875-1921	Galway ..	Ballinasloe ..	1868-1915
Wexford ..	Foulkesmill (Longraigue) ..	1869-1921	Mayo ..	Ballinrobe (Cranmore) ..	1875-1921
Wexford ..	Enniscorthy (Ballyhyland) ..	1877-1919	Down ..	Donaghadee ..	1875-1915
Carlow ..	Bagnalstown (Fenagh House) ..	1868-1921	Down ..	Banbridge (Milltown) ..	1874-1921
Carlow ..	Carlow (Browne's Hill) ..	1868-1921	Derry ..	Limavady (Drenagh) ..	1880-1921
Queen's ..	Abbey Leix (Blandsfort) ..	1877-1921	Donegal ..	Buncrana (Rockfort) ..	1875-1920
Dublin ..	Balbriggan (Ardgillan) ..	1873-1921			





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