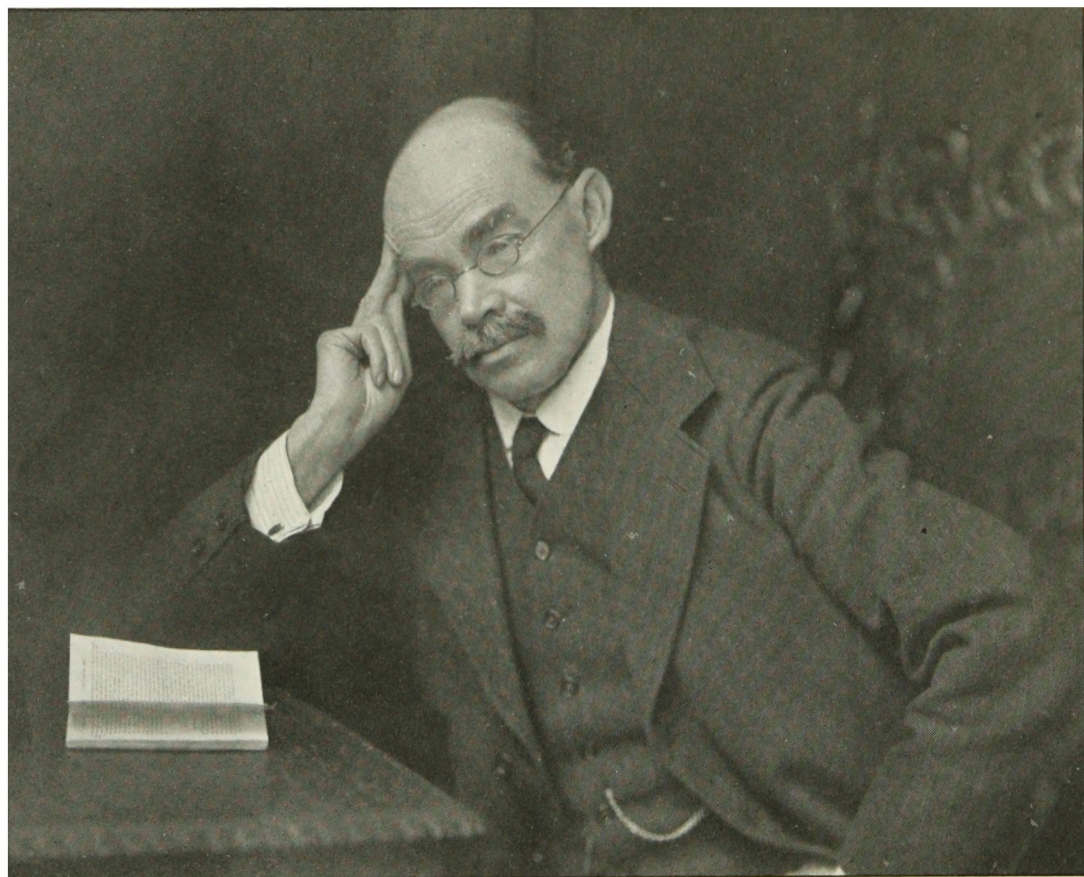


BRITISH RAINFALL,
1918.



1300-x.-19.



With kind regards
Yours very sincerely.
Hugh Robert Mill.

Duplicate

BRITISH RAINFALL, 1918



ON THE DISTRIBUTION OF RAIN

IN SPACE AND TIME OVER

THE BRITISH ISLES

DURING THE YEAR

1918

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

AND DISCUSSED

WITH ARTICLES UPON VARIOUS BRANCHES OF RAINFALL WORK

BY

HUGH ROBERT MILL

AND

M. DE CARLE S. SALTER

JOINT DIRECTORS

OF THE BRITISH RAINFALL ORGANIZATION

THE FIFTY-EIGHTH ANNUAL VOLUME

WITH MAPS AND ILLUSTRATIONS

LONDON

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

1919.

p. [272], Valencia (Glanleam), *for* 50·77 *read* 50·07.
p. [272], Cahirciveen, *for* 50·16 *read* 50·77.

p. [141], Sussex, 6, line 10, Mayfield (Xaverian College), *delete* the line.
 p. [156], last line *for* , (Central Park) *read* East Ham (Central Park).
 p. [203], W.R. Yorks., 11, line 3, Gledhow Hill (Keld House) *for* 53·88 *read* 53·61.

p. 35, line 8 of Table, last column, *read* 21·513.

p. [31], Pinewood (Crathes). In October *read* 3·50 83·9 ·042
and for the year *read* 26·78 641·0 ·042

p. [33], 1915, Intensity as per cent. of average, *for* 99 *read* 102.

p. [33], last two lines of text, *delete* 1917 average.

p. [36], 2nd line from bottom, *for* Feltham *read* Felbridge.

p. [144], Essex, 2, line 4 *for* , (Central Park) *read* East Ham (Central Park).

p. [228], *Insert* immediately above Loch Arkaig (Achnacarry)

15.—*LOCHY—Right Bank Tributaries.* 143 sq. mi.

p. [i67], 3rd line from bottom, *for* 27·57 *read* 27·68.

The following return was received too late for insertion in the tables on pages [24] to [34].

Houlton Bay, Orkney.

N. & Z.'s Hyetograph. 498 ft. above Sea.

1918.	Rainfall.	Duration.	Rate per hour.
	in.	hours.	in.
Jan. ...	1·92	57·2	·034
Feb. ...	3·50	70·6	·050
March...	1·72	59·9	·029
April ...	1·36	44·1	·031
May ...	1·18	38·4	·031
June ...	2·12	62·1	·034
July ...	5·01	67·4	·074
Aug. ...	4·99	102·5	·049
Sept. ...	4·63	92·4	·050
Oct. ...	3·32	95·7	·035
Nov. ...	3·24	62·9	·052
Dec. ...	5·29	101·9	·052
Year...	38·28	855·1	·045

CONTENTS.

	PAGE
PREFACE	7

PART I.

REPORT OF THE DIRECTORS TO THE TRUSTEES	9
REPORT OF THE TREASURER TO THE TRUSTEES	17
LIST OF DONORS TO THE ENDOWMENT FUND	17
STATEMENT ON BEHALF OF THE TRUSTEES. BY FRANCIS DRUCE	18
TRUSTEES AND STAFF OF THE BRITISH RAINFALL ORGANIZATION	21
LIST OF SUBSCRIBERS TO THE GENERAL FUND FROM JANUARY 1ST TO SEPTEMBER 17TH, 1919	22
SPECIAL ARTICLES:—	
(1) <i>The Development of the British Rainfall Organization since 1910.</i> By Hugh Robert Mill, D.Sc., LL.D.	27
(2) <i>The Relation of Rainfall to Configuration.</i> By M. de C. S. Salter	40
THE STAFF OF OBSERVERS	57
OBITUARY	62

PART II.

RAINFALL AND METEOROLOGY OF 1918:

EVAPORATION AND PERCOLATION IN 1918	[2]
METEOROLOGICAL OBSERVATIONS AT CAMDEN SQUARE IN 1918...	[5]
THE DISTRIBUTION OF RAINFALL IN TIME— <i>Rain Days—Droughts— Rain Spells—The Duration of Rainfall—Heavy Rains in Short Periods</i>	[7]
(See also addendum on page 4, Part I.)	
HEAVY FALLS ON RAINFALL DAYS	[42]
MONTHLY RAINFALL	[62]
SEASONAL RAINFALL	[102]
THE RELATION OF THE TOTAL FALL OF RAIN TO THE AVERAGE ...	[109]
EXTREMES OF RAINFALL	[117]

PART III.

GENERAL TABLE OF RAINFALL AT 4998 STATIONS	[119]
---	-------

LIST OF ILLUSTRATIONS.

	PAGE
Portrait of DR. H. R. MILL	<i>Frontispiece</i>
The Relation of Rainfall to Configuration—Cross Sections ...	<i>face p. 52</i>
Evaporation Diagram for Camden Square, 1918	,, [5]
Area with Partial Droughts in 1918 (map)	[17]
Area with Rain Spells in 1918 (map)	[17]
Diagram of Heavy Falls of Rain in Short Periods	[39]
Maps of Heavy Rain—	
May 17th, 1918	[46]
July 17th, 1918	[50]
September 15th, 1918	[54]
Maps of the Total Rainfall and of the Percentage of the Average in each Month in 1918	<i>pp. [66]-[89]</i>
Coloured Map of Relation of Rainfall in 1918 to the Average ...	<i>face p. [110]</i>

PREFACE

THIS volume has been edited entirely by Mr. Salter so far as regards compilation and proof-reading. My part has dwindled to a share in the general arrangement of the book and the authorship of a signed article, and in part of the Report to the Trustees; but I claim the privilege of writing the preface for the last time.

The article on the Work of the Organization since 1910 is a supplement to that in *British Rainfall, 1909*, on the first fifty years' work of the Organization, and is a contribution to meteorological history.

Mr. Salter's valuable paper on Rainfall and Configuration which follows, summarizes the result of much laborious map-making based on the accumulated observations of thousands of workers during the last forty years.

Attention is called to the Report of the Meeting of Trustees on July 23rd, 1919, on pp. 9 to 16, which includes a statement of the arrangements made for the future control and development of the study of rainfall in this country.

Part II. is practically unchanged in plan, the difficult conditions which have survived the war making it impossible to relax the severe compression made necessary in the last few years.

In taking my leave as Editor I recall how each of the nineteen volumes with which I have been associated was during all the months of its preparation a responsibility, a privilege, and in very large part a pleasure. I thank all the Observers whose unflagging work is the basis of the whole Organization for their cheerful co-operation in a labour the continuity of which must often have required a plentiful exercise of patience and some self-denial. As the daily labour of many bees produces an annual honey-comb so the daily visits of many Observers to their rain gauges fill up our annual structure of orderly statistics which plays its part in promoting the progress of science and the well-being of the community.

HUGH ROBERT MILL.

62, CAMDEN SQUARE,

LONDON, N.W. 1.

23rd July, 1919.

Ye who love the haunts of Nature,
Love the sunshine of the meadow,
Love the shadow of the forest,
Love the wind among the branches,
And the rain-shower and the snow-storm,
And the rushing of great rivers
Through their palisades of pine-trees,
And the thunder in the mountains,
Whose innumerable echoes
Flap like eagles in their eyries ;—
Listen. . . . *Longfellow.*

NINTH ANNUAL REPORT OF THE DIRECTORS TO THE TRUSTEES OF THE BRITISH RAINFALL ORGANIZATION.

Adopted at the Meeting of Trustees held at 62, Camden Square, London, N.W. 1,
on July 23rd, 1919.

The End of the War.—The conclusion of Peace after nearly five years of war brings with it the realization that the British Rainfall Organization has successfully stood the most severe test of its vitality which it has been called upon to meet during the sixty years of its history. It brings, too, the hope that, the country being newly awakened to the value of scientific methods, we may look forward confidently to a future of increased activity and an enlarged sphere of usefulness.

We take the opportunity of putting on record our appreciation of the support, maintained, and in some respects increased, which the Organization has received, during the last five years, from many hundreds of Observers, most of whom must themselves have had to meet new and exacting claims arising out of the war. The diminution in the number of rainfall records received has been much smaller than might have been expected, and has been in a large measure met by the commencement of new records in connection with proposed works for water supply or water power, and also by the new Government meteorological services under the Admiralty and Air Ministry. In this way, although the total numbers have slightly decreased it is probable that the representation of the country from a geographical point of view has been actually improved.

The financial problems which the war imposed were more serious, but by the exercise of the utmost economy in printing and office assistance it has been possible to carry on.

The absence of most of the trained members of the staff on war service, and the necessity of teaching inexperienced temporary assistants threw a very severe strain upon those who remained. We owe an especial debt of gratitude to Mr. J. Fairgrieve, who, often at considerable inconvenience to himself, has devoted a large amount of time during the past three years

to the plotting of maps for reproduction in *British Rainfall*. The Office work has been maintained at the pitch of efficiency requisite for the issue of the publications only by the practical abandonment of various scientific researches, and by the curtailment of all but absolutely necessary correspondence.

Reconstruction of Meteorological Services.—The revival of public interest in rainfall observations and the growing recognition of the national value of the water resources of the country foreshadow a large increase in the work and in the influence of the Rainfall Service. In the Interim Report of the Board of Trade Committee on the Water Power Resources of the United Kingdom, the position of the Organization is recognized in these words :—

“The Committee wishes to draw attention to the fact that the estimates of water-power dealt with in the Report have only been made possible by the voluntary work of rainfall Observers in all parts of the British Isles, which has been collected and discussed by the British Rainfall Organization during the past 58 years. If the fullest use is to be made of the water-power resources of this country it is essential that the work of observation should not only continue but should be encouraged and developed.”

As experience has shown that a private institution is at a serious disadvantage in dealing with official bodies, and is rarely able to secure substantial financial aid from public funds, we have had to consider whether the advantages of an unofficial constitution may not be counterbalanced in the near future by its limitations. The British Rainfall Organization has for several years supplied the monthly rainfall map to the Meteorological Office for publication in the *Monthly Weather Report*, where its origin is duly acknowledged, and the Organization has also assimilated its methods with those of the Meteorological Office in the “Observers’ Handbook.” Since the adoption of the metric system by the Meteorological Office we have fallen into line to the extent of printing all the annual totals in *British Rainfall* in millimetres as well as in inches. Friendly association with the new meteorological services set up by the Admiralty and the Air Board during the war has brought the Organization into touch with all the Government agencies of a kindred nature, and a closer co-ordination of our work with theirs would be a natural development. The consolidation of the Meteorological and perhaps other

scientific services in a common system would obviate overlapping and promote co-operation, while it need not interfere with the encouragement of voluntary effort. We are convinced that the future success of the British Rainfall Organization depends on its incorporation in some such scheme.

Retirement of Dr. H. R. Mill.—The following letter addressed to the Trustees by Dr. H. R. Mill, may be conveniently inserted here as a record :—

Gentlemen,

“ During the summer of 1918, it became evident that the serious accident I met with on March 18th of that year had so shaken my health that I could not retain any position involving either hard work or heavy responsibility. The appointment of Mr. Salter as Joint-Director in July, 1918, enabled me to continue as the head of the British Rainfall Organization for a time; but I felt that the position while imposing a great strain on me was likely to hamper the work, and possibly prejudice the future of the Organization. Accordingly I place my resignation in your hands desiring that you will allow me to retire from the position of Director of the British Rainfall Organization on the 23rd of July, 1919.

“ I believe that the arrangements which have been made for the future of rainfall work in this country are the best possible in the very difficult circumstances in which we find ourselves. My place is now rather with the past than the future, and I will indulge in no forecasts. When I recall the hopes and ambitions with which I entered on the rainfall work on January 1st, 1901, I must confess that I overestimated my powers of coping with difficulties the extent and nature of which were a progressive revelation. But there was no failure or disappointment in one respect at least: the kindness and helpfulness of the great body of voluntary rainfall Observers, swelling from about 3,500 when I came among them to more than 5,500 at the outbreak of the war. It was an unceasing pleasure to collect the data they were always willing to send, and a labour of love to turn the figures to the best account I could in the pages of *British Rainfall* and *Symons's Meteorological Magazine*. When in 1910 you joined me in the responsibility of preserving and rendering available the

accumulated rainfall records of half a century, we placed the Organization on a basis which would, I believe, have ensured stability and ever-growing resources and usefulness if the old order of national life had continued. The changes brought about by the war have made it necessary to move with the general current. I can never forget the generous consideration you showed me during the years since my eyesight gave way in 1913, and I hope to remain with you as a Trustee until the Trust lapses.

"I may also record my thanks for the unfailing loyalty and devotion of the staff at 62, Camden Square, and the sadness of regret with which I part from the old instruments, the old records, even the old furniture of the historic rainfall house, is mitigated by the thought that they will still be under the personal care of the survivors of the old staff.

Yours very sincerely,

(Signed) HUGH ROBERT MILL,

July 15th, 1919.

Director, British Rainfall Organization.

Staff and Office Work.—Mr. H. E. Carter, whose internment as a prisoner of war in Germany we put on record last year, was released soon after the armistice in November, and returned to his duties at Camden Square on January 1st, 1919. His long experience of the office routine and methods has greatly relieved the strain on the other members of the Staff. Mr. C. F. Evans gave up his post as map draughtsman on April 17th, as he was required to assist his father, who had just been released from the Army. He has, however, been kind enough to assist occasionally with the map work. Mrs. Evans, who had given valuable help in the office was also obliged to leave at the end of 1918. Mr. R. Lamport has continued his faithful service, although at an age considerably beyond that at which this could reasonably be expected, and we suggest that when he must retire he should receive a pension equal to his present salary in recognition of his devoted work for 31 years. The junior assistant, J. Oliver, has proved a useful recruit.

The vacancy in the Staff caused by the death of Mr. D. S. Salter left us without an experienced cartographer, and, but for the generous help of Mr. J. Fairgrieve we should have had the utmost difficulty in plotting the daily and monthly rainfall maps in time for the publication of *British Rainfall* at any reasonable date. Mr. M. J. Salter has again given valuable assistance by undertaking several heavy pieces of computing work.

The Observers.—The falling off in the number of Observers due to war conditions, if it has not entirely ceased, has become so trifling during the past year, that we feel justified in viewing the restraint on expansion imposed by the war as already removed.

The new stations set up have in many cases filled important gaps in the map. Signs are not wanting that considerable improvement in this direction may be looked for in the near future, especially in Ireland and Wales. We welcome the formation of the Munster Rainfall Association, under the enthusiastic secretaryship of Mr. E. W. M. Murphy, whose activities cover the south of Ireland generally. We understand that a number of new stations have already been commenced on his initiative. There has been no falling off in the co-operation of the considerable number of such associations already in existence and with the removal of the Censor's ban on the publication of meteorological statistics, the activities of several, which had been temporarily suspended, have been resumed. We have received records as usual from a large number of public bodies and desire to express our thanks for the courteous manner in which they have acceded to our requests for data.

Five of the original Observers whose records appeared in the first volume of *British Rainfall for 1860-61*, remain to see the beginning of what we hope will prove a period of even greater usefulness than the sixty years which have passed. They are :—

R. BURRELL, Esq.,	LORD PECKOVER OF WISBECH,
W. S. CLARK, Esq.,	and
DR. W. C. LAKE,	J. G. WOOD, Esq.

We regret to have to state that the inspection of rain gauges has again been practically suspended during the year.

British Rainfall.—The volume, as sent to the printers this week, is practically in the same form as that for 1917. The cost of paper and printing has continued to increase, and the economies in space introduced during the war could not be relaxed in this issue. Some of these, indeed, which achieved their end by compression, may be retained permanently. The number of illustrations has necessarily been kept at a minimum on account in part of the want of cartographical assistance, but the maps showing the distribution of monthly rainfall have been continued in full. The small number of daily rainfall maps is not dictated by economy, but is imposed by the peculiarities of the rainfall of the year, since very few

days during 1918 showed a distribution of rainfall of sufficient amount or individual character to require cartographical treatment.

One innovation which we trust will make for clearness is the revision of the General Table of Rainfall, so that the position and authority for each record are given in full in every case.

At the same time the mark † indicating that a station has been inspected, has been removed, as in many cases so much time had elapsed since the inspection that it had ceased to serve the purpose for which it was introduced.

Symons's Meteorological Magazine.—The monthly magazine has appeared regularly during the year, though it has been necessary to keep the size down to twelve pages nearly every month. The action of the Admiralty Censor in prohibiting the publication of meteorological statistics made it necessary to issue the numbers for September, October and November, without the usual tables of rainfall and account of the weather of the month. These omissions were remedied in the December number, when the belated tables were sent out, pagged for insertion in their proper place in the volume.

Scientific Work and Advice.—It has not been possible to make any progress with the work on the fifty years' rainfall map of the British Isles. Opportunity has, however, been taken to extend, and in some cases to revise, the average rainfall map on the scale of 2 miles to one inch, the new work being chiefly in Scotland and Wales. Mr. Carter has resumed and practically completed the summary of the hourly amount and duration of rainfall at Camden Square—another long deferred piece of work which promises results of scientific interest.

Maps of the monthly rainfall have been prepared as usual for the *Monthly Weather Report* of the Meteorological Office, and we have continued to supply summaries of the meteorological observations at Camden Square for publication in the *Daily* and *Monthly Reports*.

Dr. H. R. Mill has devoted a large amount of time to attending the meetings of the Board of Trade Committee on Water Power Resources, and Mr. Salter has attended sub-committees on one or two occasions by invitation. The sub-committee charged with the preparation of an index map of the British Isles for the purpose of a water power survey met on one occasion at Camden Square, and modelled their sub-division of the country largely upon the river-basin system adopted by the British Rainfall Organization. General advice has also been given in connection

with Irish Water Power ; and maps of the rainfall of Ireland supplied. Dr. Mill has sat as a member of the Committee on Water Power of the Conjoint Board of Scientific Societies. Rainfall data and advice with regard to meteorological instruments have been given to several Government Departments, and also to the Government of Ceylon.

There has been the usual number of enquiries from the general public both at home and abroad on matters regarding rainfall, and these have been answered in full whenever possible. But for a few months when all meteorological information was under a ban the London newspaper press has been supplied with rainfall data whenever these were asked for.

Mr. Salter has continued to serve on the Council of the Royal Meteorological Society and has taken part in the discussions on papers. He has sat, by special invitation, as the representative of the British Rainfall Organization on the Joint-Committee of the Royal Meteorological Society and the Meteorological Office for the preparation of a revised Climatological Atlas of the British Isles. He read a paper on "The Relation of Rainfall to Configuration" before the Institution of Water Engineers, in December, 1918, the substance of which is reprinted in the present volume. At the summer meeting of the Institution Mr. Salter was awarded the President's premium for the paper in question.

Professional Work by the Director.—Under Clause 25 of the Trust Deed, Dr. H. R. Mill has continued to act as Rainfall Expert to the Metropolitan Water Board, but has intimated his retirement from that position on September 30th next. As in former years reports have been made to the Thames Conservancy, and to the Birmingham and Birkenhead Corporations on the rainfall of the areas under their charge. We have prepared reports and given advice in connection with the Manchester, Glasgow and Tynemouth Water Bills before Committees of Parliament, and also in connection with two other schemes for Water Supply in Wales and the west of England. Several maps have been prepared showing the average rainfall of extensive areas in various parts of Scotland, Wales and the north of England, and other information given for the purpose of investigation of potential hydro-electric power stations in various parts of the country.

The General Fund.—Dr. H. R. Mill, who is personally responsible for this fund and is under no obligation to give an account of it, has, as in previous years, prepared a condensed statement of income and expenditure, which is given below.

Receipts on Account of British Rainfall Organization, 1918.

	£	s.	d.
Subscriptions	1223	13	11
Special Donation for Extra Assistance	100	0	0
Sales to Public	66	16	2
Advertisements	55	7	5
Certificates	7	13	5
Supplying Rainfall Data	16	17	0
Maps and Literary Work	26	1	0
Interest on Endowment Fund and Bank Deposit	68	4	10
Meteorological Office, towards expenses of Metric Conversion	30	0	0
TOTAL	£1594	13	9

Expenditure on Account of British Rainfall Organization, 1918.

	£	s.	d.
<i>British Rainfall and Symons's Meteorological Magazine</i> (including Postage)	574	5	9
Observers and Instruments	30	2	2
Salaries and Assistance	653	7	2
Printing, Stationery and Establishment Expenses	187	18	4
General Postage, Telephone, Petty Cash and Miscellaneous Expenses	86	19	3
Towards repayment of 1917 Deficit	50	0	0
TOTAL	£1582	12	8
BALANCE carried forward	£12	1	1

For the first time for many years the accounts show no deficit but a small surplus of receipts, which has been carried to the account of the current year. This result is brought about only to a small extent by increased subscriptions, the amount credited under this head including a donation of £45 towards the deficit of last year. A generous gift of £100, with the object of securing additional assistance in the Office, relieved our anxiety towards the close of the year and helped us to meet the growing printing charges.

It may be permissible to say that no attempt was ever made in pre-war days to keep the expenditure within the income. The publications were, within reason, allowed their natural expansion, and the Director was willing to pay for the relief of anxious forethought this method effected.

62, CAMDEN SQUARE,
LONDON, N.W. 1.

HUGH ROBERT MILL,
CARLE SALTER.

TREASURER'S REPORT FOR THE YEAR 1918

The following sums have been received:—

	£	s.	d.
Balance from 1917	26	9	11
R. Cooke, Esq. (9th Donation)	4	5	0
Executors of the late Mr. George Searle—Balance of Legacy	33	19	11
Executors of the late Mr. W. B. Butler—Legacy	100	0	0
	<u>£164</u>	<u>14</u>	<u>10</u>

On August 28th, 1918, the Trustees caused application to be made for £50 5% Nacional War Bond, 1928.

On July 23rd, 1919, the Trustees held as the Endowment Fund:—
£2,151 11s. 3d. North British Railway 3% Debenture Stock; £123 5s. New South Wales 3% Inscribed Stock; £100 5% War Stock, 1929-49; £100 5% National War Bond, 1927; £50 5% National War Bond, 1928; £120 5s. 4d. cash.

Between the end of 1918 and July 23rd, 1919, the following further sums have been received:—

	£	s.	d.
R. Cooke, Esq. (10th Donation)	5	0	0
Anonymous	10	6	
	<u>£5</u>	<u>10</u>	<u>6</u>

THE PRINCIPAL DONATIONS TO THE ENDOWMENT FUND RECEIVED UP TO JULY 23RD, 1919, WERE AS FOLLOWS:—

Boughton, Miss F. H. Rouse	£110
Brook, Charles L., Esq.	£500
Butler, the late W. B. (legacy)	£100
Druce, Francis, Esq.	£200
Freshfield, D. W., Esq., D.C.L.	£200
Mellish, Lt.-Col. H., C.B.	£300
Morrison, W., Esq.	£215
Murray, the late Sir John, K.C.B., F.R.S.	£100
Searle, the late G., Esq. (legacy)	£174

FRANCIS DRUCE, *Treasurer, Endowment Fund.*

STATEMENT ON BEHALF OF THE TRUSTEES OF THE BRITISH RAINFALL ORGANIZATION.

It will have been observed with great regret from the letter from Dr. Mill to the Trustees contained in the Directors' Ninth Annual Report to the Trustees, (see page 11), that Dr. Mill has found it necessary, on account of ill health, to retire from the Directorship. Thus is closed Dr. Mill's association with the direction of the Organization which has lasted for nearly nineteen years, the last nine years of which have been spent in developing the work with great success after he had generously placed the records and other property of the Organization in the hands of Trustees for the public benefit. It has been within the knowledge of the Trustees for some considerable time past that the state of his health would render Dr. Mill's resignation imperative sooner or later, and they have accordingly given anxious and careful thought as to the future of the Organization when Dr. Mill's resignation should have actually taken effect.

The Organization is a unique thing, and as such requires, it may be said, a unique personality to conduct it.

In the latter part of the war it became obvious that a Re-construction or Re-organization of the Meteorological Services of the Country was unavoidable, and it hardly seemed possible that in the process the British Rainfall Organization should continue on its present basis, *i.e.*, as a private concern, and the Trustees felt that if satisfactory arrangements for its being carried on in conjunction with the official Meteorological Service could be made and on terms which would include so far as possible the continuance of the voluntary system of rainfall observation and the issue of the Organization's publications on similar lines as heretofore, this would serve, as would no other course, best to preserve the efforts and sacrifices made by the immense body of Observers throughout the country continued over so long a series of years. Negotiations therefore

were begun with the Meteorological Office with a view to seeing whether the Organization could not in future be carried on by the Meteorological Office somewhat on the terms outlined above, and the Trustees are glad to be able to report that, at the time when Dr. Mill's resignation is actually taking effect, arrangements which they consider to be satisfactory have been made for the amalgamation of the Organization with the Office.

An agreement has been entered into, and the Trustees consider that it will be of interest if some details are given shortly as to the terms on which the transfer of the Organization to the Office has been made. The Agreement, which is dated the 24th day of July, 1919, is made between the Trustees of the one part and Sir William Napier Shaw, the Director of the Meteorological Office, of the other part. The Organization and its assets (not including the Endowment Fund or the Lease of 62, Camden Square, both of which remain in the Trustees' hands) have been made over to the Director, who agrees to carry on at 62, Camden Square, the work of the Organization in continuation and, as nearly as circumstances will permit, in the like manner as heretofore, until the work be removed to other and equally suitable offices, and in such a way as to avoid any discontinuity in regard to the work or records. If and when removal becomes necessary the work is to be continued in like manner and in this matter Dr. Mill is to be consulted. The system of voluntary observation of rainfall in the British Isles is to be extended and systematized, and the records are to be preserved at Camden Square or elsewhere, and Observers who supply records are to have copies of their own records free of charge should they so desire. The annual volume of *British Rainfall* is to be continued as nearly as possible in the same form as at present, and *Symons's Meteorological Magazine* to be continued under the same or a similar title. It is also agreed that the Meteorological Office shall continue to employ the existing staff of the Organization and the Trustees are informed that Mr. Salter will be in charge of the Rainfall work. It is believed and hoped that the Observers who have so largely contributed to building up an Organization which has no parallel in any country will think that the Trustees have taken the best possible steps for its preservation. It is further satisfactory to record that, in addition to the undertaking given by the Director as outlined above, a sum of money has been paid to the Trustees sufficient to buy for Dr. Mill during his life an annuity which will in some degree compensate him for the sacrifices made by him

in making over the Organization for the benefit of the public and the time and energy spent by him in developing and extending the work.

It remains to be said that the Trustees have entered into an agreement with the Commissioners of His Majesty's Works and Public Buildings for the Commissioners to take a tenancy of 62, Camden Square, where the work is, it is understood, at any rate for the present, to be carried on by the Meteorological Office.

In making the above brief announcement the Trustees only add that while the active management of the affairs of the Organization and its direction have been in the hands of Dr. Mill, and lately of Mr. Salter, his co-Director, they have since the establishment of the Trust, used their best endeavours to execute the Trusts reposed in them in the public interest and to the advancement of Meteorological Science.

FRANCIS DRUCE,

(On behalf of the Trustees).

July, 1919

THE BRITISH RAINFALL ORGANIZATION.

Trustees.

HUGH ROBERT MILL, D.Sc., LL.D., Past President of the Royal Meteorological Society, *Chairman*.

CHARLES L. BROOK, B.A., Meltham, Yorkshire.

CHARLES J. P. CAVE, M.A., Past President of the Royal Meteorological Society.

FRANCIS DRUCE, M.A., London, *Treasurer*.

DOUGLAS W. FRESHFIELD, M.A., D.C.L., Past President of the Royal Geographical Society.

LT.-COL. HENRY MELLISH, C.B., Past President of the Royal Meteorological Society.

JAMES G. WOOD, M.A., LL.B., London.

Staff.

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Pain & Sons, Messrs. W. E.	1	1	0	Rose, Sir Philip F., Bart.	1	1	0
Palairret, H. H., Esq.	2	0	0	Rowntree, Mrs. J. S.	1	0	0

	£	s.	d.		£	s.	d.
Russell, The Earl	1	0	0	Towse, Sir J. Wrench	1	10	0
St. Maur, Lord Ernest.....	1	1	0	Trench, J. A., Esq.	1	1	0
Sanderson, Mrs.	1	10	0	Trew, J. P., Esq.	1	1	0
Scott, C. H., Esq.	1	1	0	Tritton, J. H., Esq.	2	12	0
Scott, J., Esq.	1	1	0	Truell, Rev. W. H. A.	1	1	0
Scott, The Lady Mary	1	1	0	Turner, Percy, Esq.	1	0	0
Scrutton, Arthur, Esq.	1	1	0	Twist, T. F., Esq.	1	0	0
Scrutton, J. H., Esq.....	1	1	0	Tyack, G. Ashley, Esq.	1	1	0
Sedgwick, Walter, Esq.	1	6	0	Urmson, Rev. Canon T.	1	17	0
Sellar, G. Craig, Esq.	1	1	0	Vernon, J. H., Esq.	2	2	0
Sharman-Crawford, A. F., Esq... 10	0	0	0	Vint, W. F., Esq.	1	1	0
Shaw, Sir A. W.	1	1	0	Waddingham, T. J., Esq.	1	1	6
Shedden, G., Esq.	2	2	0	Waldegrave, The Earl of.....	1	18	0
Sheldrake, W., and H. J., Esqs..	1	1	0	Walker, Capt. A. J.	6	0	0
Shepherd, J. W., Esq.	1	0	0	Walker, Alfred O., Esq.	1	10	0
Shorrocks, J. C., Esq.....	1	0	0	Walker, Rev. H. Milnes	1	1	0
Shoults, G. F., Esq.	1	2	0	Walker, Messrs. J. & T.	1	0	0
Shuttleworth, Lord	1	1	0	Walker, J. H., Esq.	1	1	0
Sing, Alex. M., Esq.	1	1	0	Wallace, Miss M.	1	0	0
Sing, Roger P., Esq.	1	1	0	Walters, F. R., Esq., M.D.	1	1	0
Sligo, The Marquis of	1	0	0	Webb, Capt. F. D.	1	0	0
Smallpeice, F. F. Esq.	1	2	6	Webber, W. Downes, Esq.	1	6	6
Snowden, Rev. H. C. V.	1	1	0	Weekes, M. G., Esq., C.F. (2 years)	1	1	0
Soames, Rev. H. A.	1	1	0	Welby, Sir C. G. E., Bart., C.B...	1	1	0
Soames, Capt. R.	1	5	0	Welch, J., Esq.	1	1	0
Somerset, The Duke of.....	1	1	0	Welch, W., Esq.	1	1	0
Southwell, H. J., Esq. (1918)	1	1	0	Welch, W. G., Esq.	2	0	0
Staines, Arthur J., Esq.	1	0	0	Weldon, E., Esq.	1	1	0
Stansfeld, A. W., Esq.	1	1	0	Weller, G., Esq.	1	0	0
Stanton, A. W., Esq.....	1	1	0	Westminster, The Duke of (2 years)	2	0	0
Stanton, J. C. M., Esq.	1	1	0	Weston, G., Esq.	1	1	0
Steel, Arthur J., Esq.	1	5	0	Weston, J., Esq.....	1	1	0
Stephens, A. J., Esq.	2	17	0	Whitaker, Mrs.	1	0	0
Steward, J. J., Esq.....	1	15	0	Whitaker, B. L., Esq.	1	0	0
Stewart, Mrs. Herbert	1	1	0	Whitchurch, J. Arnold, Esq.	1	1	0
Stewart, Sir Mark J. McT., Bt., M.P.	1	1	0	White, J. Martin, Esq.....	1	1	0
Stewart, Rev. W. E.	1	5	0	White, W. T., Esq.....	1	1	0
Stirling, C., Esq.	1	0	0	Whitehead, Mrs. Lionel	1	1	0
Storey, F., Esq.	1	1	0	Whittington, C. J., Esq.	1	1	0
Stothert, Sir Percy K.	1	0	0	Wilde, Mrs.	1	5	0
Straker, J. H., Esq.	1	1	0	Wildgoose, Mrs. R.	1	0	0
Strutt, G. Herbert, Esq., D.L. ..	1	1	0	Wilkin, Mrs. A.	1	6	0
Stunt, W. C., Esq.....	1	0	0	Wilkin, F., Esq.	2	10	0
Sturt, Miss K. M.	1	10	0	Wills, Dr. W. A.....	1	1	0
Sugden, Hatton G., Esq.	1	1	0	Wilson, Albert, Esq.....	1	16	0
Sutton, Dr. J. P.....	2	0	0	Wolferstan, Mrs.	1	0	0
Swinton, A. E., Esq.....	2	0	0	Wood, E. J. W., Esq.....	1	1	0
Sykes, A. H., Esq.....	1	0	0	Wood, J. G., Esq.	2	2	0
Tailyour, W. Stewart, Esq.....	1	0	0	Woodhead, James, Esq.	1	1	0
Tatham, Leonard J., Esq.	1	0	6	Woodhouse, Miss E. D.	2	2	0
Tatham, M. T., Esq.....	1	0	0	Woodruff, Dr. J. Winthrop	1	1	0
Tatton, R. A., Esq.	1	1	0	Woods, Miss	1	0	0
Tatton, T. Egerton, Esq.	1	11	0	Wordsworth, Gordon G., Esq.	2	0	0
Tawney, Miss E. M.	1	12	6	Worthington, W. B., Esq., C.E..	1	0	0
Tawse & Allen, Messrs. C.E.....	1	1	0	Wright, P. Lennox, Esq.....	1	1	0
Taylor, C. E., Esq.	1	1	0	Wynford, Col. Lord, D.S.O.	1	0	0
Taylor, Capt. E. R.	5	0	0	Wynne, E. N., Esq., C.E.	1	6	0
Taylor & Sons, C.E., Messrs. J...	1	1	0	Yates, Rev. W. E.....	1	1	0
Tew, E. G., Esq.	1	0	0	Yool, Mrs. H.	1	1	0
Thomas, J. F., Esq.	1	0	0				
Thompson, Mrs. Heywood	1	1	0				
Thompson, H. Yates, Esq.	1	1	0				
Thomson, J., Esq.	1	1	0				
Tidswell, R. I., Esq.	1	1	0				

THE DEVELOPMENT OF THE BRITISH RAINFALL ORGANIZATION SINCE 1910.

By HUGH ROBERT MILL. D.Sc., LL.D.

IN *British Rainfall, 1909*, I gave an account of the rise and progress of the systematic study of rainfall in the British Isles under the title of "The British Rainfall Organization after Fifty Years," and now, at the closing of a chapter in the history, it is right and fitting that the efforts and outcome of the last nine years should be placed on record.

The Trustees took up their trust in the hope that the Endowment Fund, which they established, would increase to such an extent as to enable the Organization to develop greatly in scope and usefulness. There was a body of accumulated experience which could be relied upon to guide the expansion of the work and to obviate the risk of rash experiments. And, although the work of the Organization had been improving both in quality and in the form of its presentation the necessity and practicability of many improvements were attractively clear. Various new departures were entered upon at once so that when the new source of income from invested funds should begin to flow strongly, some channels by which the golden stream could be made productive in scientific results would be found ready to conduct it in the right direction. The stream has not risen to the hoped-for height, but the plans matured in anticipation are still available.

In *British Rainfall, 1911*, Mr. Salter, who had been Chief Assistant since 1907, assumed the entire responsibility for the statistics in the General Table. In recognition of the growing share of the burden of responsibility of which he relieved me Mr. Salter's name was associated with mine on the title page of *British Rainfall, 1912*, and subsequent volumes, and he was appointed Assistant Director in 1913, and Joint-Director with me in 1918. Commencing his association with *British Rainfall* in 1897 while still under the charge of its originator, Mr. G. J. Symons, Mr. Salter continued throughout the time of the second Director, Mr. H. Sowerby Wallis, and through mine, so that on reaching

the joint-directorship he has had the opportunity of putting into practice the accumulated experience of the whole history of the Organization.

The Present Position of the Organization.—The main difficulty in organizing voluntary workers is to ensure uniformity in the conditions of observing without losing any willing helper by imposing unduly hard restrictions or unnecessarily severe criticism of the work done. The delicate balance between encouragement and correction is difficult to strike, but experience shows that it can be approached with fair success. Reference to early volumes of *British Rainfall* shows how hard Mr. Symons laboured to reduce the diversity he found in the pattern and exposure of rain gauges, the hour of reading and the mode of entering the result. These efforts we have continued and now uniformity has been secured to such an extent that there would be little risk of losing valuable records if a fairly strict adherence to the "Rules" were made a condition of publication. I use a qualified phrase only because of the confusion introduced by Summer Time in the hour of reading. The general adoption of 9 a.m. as the time for visiting rain gauges came to pass because that hour best suited the domestic arrangements of most people in this country, and the clock governs the house, so amateur Observers are often unable to stick to Greenwich time for their readings. Still we have now approximated so closely to uniformity that discussions of the distribution of rain are on a more secure foundation than has existed before.

Co-operation with Government Institutions.—The arrangement by which we supplied a copy of the preliminary rainfall map of each month for publication in the *Monthly Weather Report* has been kept up throughout the war; and the Meteorological Office has been most courteous in making all its records of rainfall available for publication in *British Rainfall*. Another important piece of co-operation was the work carried out for the Board of Education in connection with the Water Supply Memoirs of the Geological Survey. For each of these memoirs a map of the average rainfall of the county dealt with was prepared and the distribution and fluctuations of the rainfall described in accompanying letterpress. I have devoted a large part of my time during the last year to the Board of Trade Committee on Water Power Resources.

Arrangement of Stations.—The first reform undertaken after the Trustees were appointed was a heavy piece of work, the re-arrangement

of the stations, reports from which appear in *British Rainfall*. It was clear that the use of rainfall data in geographical investigations and still more in large engineering undertakings demanded a natural classification, that by river-basins, and this it was decided to adopt. But for reasons of expediency it was inadvisable to abandon the grouping of rainfall stations in counties, so the county and the river basin were taken as units, to be sub-divided, all the boundaries of sub-divisions being either watersheds or county boundaries. Continuity with the past was secured by using the counties as main divisions for publication. The portions of the same river-basin in different counties can be brought together in a few moments. The work involved the tracing of the watersheds on a map of the British Isles on the scale of half an inch to a mile, and the measurement of the areas of the 645 fragments of mosaic defined by watersheds and county boundaries. In this work the expert cartographical assistance of the late Mr. D. S. Salter was invaluable. The new sub-divisions illustrated by maps were published for England and Wales in *British Rainfall, 1910*, and for Scotland and Ireland in *British Rainfall, 1911*, and they have been in use since those dates to the great advantage of all who have to deal with the statistics. Until the exigencies of the war banished them, key-maps of the sub-divisions in each division were published in the General Table of *British Rainfall*.

Metric Units.—The introduction of the metric system for rain-measurement by the Meteorological Office in 1915, made it necessary to consider whether the British Rainfall Organization should still retain the inch. The policy decided on was to use for all discussions the unit most familiar to the majority of those interested in rainfall observations and records, that is to say to use the inch until it became less familiar than the millimetre, and to adopt the millimetre as soon as it became more familiar than the inch. At the same time we resolved to print all records in the General Table in the units in which the measurements were made, whether these were inches or millimetres. In order to make this possible it was necessary to adopt a page half an inch wider than that hitherto in use ; but the volume was kept of the same height so that the series should range unbroken on a shelf. As only one record was sent in in millimetres for 1914, there would have been but one five-thousandth, or $\cdot 0002$, of the ribbon of new column to be used that year, so with the object of helping to familiarize rainfall

Observers with the continental units we converted the whole of the annual totals into millimetres, and have since continued to exhibit them in both kinds. Towards the expense of the conversion the Meteorological Office made an annual contribution. If it were considered practicable to express rainfall measurements in millimetres and vulgar fractions, using $\frac{1}{4}$, $\frac{1}{2}$ and $\frac{3}{4}$, we could retain the old long-tested and convenient definitions of a rain day on which so many other definitions depend. If we could do this the two systems so far as rainfall data are concerned, would become commensurable, as one-hundredth of an inch is within the limits of observational error equal to one quarter of a millimetre. Should the worship of decimals demand strict orthodoxy the question of definitions will become full of difficulty and new definitions must be adopted which are unlikely to prove more convenient than the old and must inevitably break that continuity which is necessary for all comparison of past and present records. I am glad that the responsibility of the decision will not rest on me.

Improved Instruments.—Mr. Symons had brought the rain gauge for direct reading by Observers once a day very nearly to perfection in the Snowdon pattern. The chief improvement we have introduced has been the Camden measuring glass, by which the critical reading of .01 in. is greatly facilitated. The “British” rain gauge introduced by Messrs. Negretti and Zambra before the war was the outcome of our efforts to induce manufacturers to produce the cheapest possible Snowdon type gauge of high accuracy. In 1912 I designed the Seathwaite rain gauge for use in the wettest parts of the country, where readings could only be taken once a month, the objects aimed at being great capacity, resistance to frost and easy measurement with few readings of the glass. The instrument has given satisfactory results at The Styne, where I installed one in 1912.

The Hyetograph, which was devised in 1908 to carry out certain principles which experience had convinced me were essential to the wide use of self-recording rain gauges, has given general satisfaction, and the great increase in the number of records from self-recording gauges is mainly a result of employing it.

Contents of “British Rainfall.”—From an early period a large share of *British Rainfall* was devoted to Remarks by Observers on the

general weather of the days, the months and the year. Much of this material, though interesting and often useful, was irrelevant to our main theme, the distribution of rainfall; and as the statistical data came to be treated in greater detail and in a more scientific manner, thus requiring more space, the question of retaining the "Remarks" became acute. In *British Rainfall, 1910* the "Remarks on the Months" were dropped, but those on the Days and on the Year were continued, made more systematic, and the names of the Observers added to the Yearly Remarks. While we selected the Remarks for publication so as to exclude those which had no relation to rainfall we felt increasingly that they had a tendency to duplicate information set out far more systematically and published more appropriately by the Meteorological Office, and from that point of view some consolation could be seen when the stringency of war-conditions made it necessary to drop the "Remarks" altogether from *British Rainfall, 1915*, and following years. I am sure that many Observers look forward to their re-appearance. I feel that there should be some section of the annual volume which gives in their own words the results and generalizations of those Observers whose long-continued records and keen interest in the observations give them a special claim to consideration.

An important change in the contents of *British Rainfall* had been planned before the war, but had to be postponed when money, assistance and paper became almost unobtainable. It would have been my first care after the return of peace had the Organization been maintained on the old lines. This is the publication of all monthly totals of rainfall in the General Table. All that is required is to double the number of pages giving a line to the 12 monthly values for each station on one page opposite the line already devoted in the existing page to the annual total and particulars of the rain gauge.

From 1905 to 1911 the daily rainfall figures at ten stations were published in *British Rainfall*. These tables were important as examples of well-kept daily records, and as indicating the sort of variations to be expected between the results of different Observers. I feel that they ought to be restored in greatly increased numbers; but for many reasons only representative examples should be given.

Other Desiderata, the pursuit of which was checked by the war, are set out on pp. 39-40 of *British Rainfall, 1909*. They include the enlargement of the Office staff to enable a more systematic and prompt

mapping of monthly and large daily totals so as to ensure the detection of errors, many of which we know escape attention through the sheer bulk of the statistics. A very high degree of accuracy is attainable by following out processes that have been tested and are perfectly practicable.

Another desideratum is the more energetic pursuit of new Observers in parts of the country but poorly supplied with rain gauges. Much can be done to enlist the services of voluntary Observers through the establishment of local associations and much can also be done by local authorities especially through the School Committees of County Councils, and the Water Authorities, where these do not already realize the importance of keeping records. The recognition now being given to the paramount value of the water resources of the country will, I believe, ensure at an early date a great increase in the number of Observers, especially in those thinly peopled districts in which great reservoirs can be established for the supply of towns and the production of water-power. It is essential that all such observations should be standardized and discussed by a central authority.

Arising out of the two desiderata just considered is a third, the systematic inspection of rain gauges all over the country. In Mr. Symons's time such a thing could only be done by employing a large staff of inspectors, and it would be very difficult to find a sufficient number possessed of the necessary keenness, tact and comradeship to detect defects, secure their amendment and make friends and fellow workers of the Observers. Now, however, the motor-car makes it possible and pleasant for one good man to undertake the whole work, thereby securing uniformity far more effectively than could ever be done by a body of inspectors who would themselves have constantly to be inspected.

Scientific Investigations.—(1). Annual Rainfall Maps—I had completed with assistance which has been acknowledged from year to year a series of maps of the annual rainfall of the British Isles from 1865 to 1914. These are on the scale of 19 miles to an inch, and a method had been worked out for combining the 50 maps so as to present the average rainfall for the whole period. This has been completed for Scotland, carried to a considerable distance for Ireland and commenced for England and Wales when the war stopped the work. It was intended to construct a map for each year showing the percentage of the average rainfall in a form similar to the coloured maps published annually in *British Rainfall*; but

of course in far greater detail, and the whole hundred and one maps would form a very complete Rainfall Atlas to which I had hoped to add an explanatory memoir discussing the variations from the average exhibited from year to year in all parts of the British Isles.

The paper on "Isomeric Rainfall Maps of the British Isles," presented by Mr. Salter and myself to the Royal Meteorological Society, in 1914, and summarized in *British Rainfall, 1914*, furnishes a basis for the compilation of maps of average monthly rainfall, though the relationships it dealt with indicate the probability of a much greater range of variability in monthly than in annual averages even over a great many years.

(2.) Large Scale Average Rainfall Map.—A more detailed and a much more valuable map which it was my ambition to complete is one on the scale of half-an-inch to a mile, showing the relation of rainfall to geographical features. For this map I proposed to use all the accumulated records, computing the long-period average from the means of the shorter records according to the method adopted in the rainfall maps illustrating my discussion of the rainfall of many English counties published in the Water Supply Memoirs of the Geological Survey. All these maps are published on a small scale though compiled on a large one. In addition to these county maps I have published river-basin maps of the same degree of detail for the Exe, and the Forth, and we have also prepared maps of a large number of river basins and of detached areas in connection with many waterworks undertakings. These maps were constructed in nearly every case for a 35-years' average, and they only want to be revised so as to include records received since the earlier portions were compiled to form the framework of the complete average rainfall map, the image of which was the motive that led me to devote myself to the study of rainfall as the main object of my life, twenty years ago. Its incompleteness when I am obliged to relinquish work upon it is the greatest disappointment of my experience. I estimate that now two thirds of the area of England and Wales, one half of Scotland, and one seventh of Ireland, have already been mapped on this scale. The completion of the map will require the establishment of new records in many wide areas hitherto ungauged; but when completed it will give data of inestimable value in vital questions connected with water-supply, water-power, drainage, inland fisheries, sewage disposal and other matters of urgent public importance. Incidentally it was the work on this map which supplied the material for

Mr. Salter's important paper on the relation of Rainfall to Configuration, read before the Institution of Water Engineers in 1918.

(3.) Hourly Rainfall.—A full discussion of the hourly rainfall at Camden Square since the first automatic recording gauge was established in 1880 has been carried nearly to a conclusion.

(4.) Rain-fields and Cyclone Tracks—Perhaps the most interesting of the investigations which have been in progress as part of the routine of rainfall work is that of individual showers. The only practicable method is to deal with the whole fall of one or of several rainfall days and to map the results. In addition to the normal distribution of rain produced by rain-bearing winds blowing straight from the sea and depositing precipitation in close relation to the configuration of the land, there are two contrasted types which show little or no relation to configuration. These are the thunderstorm rains of limited area, irregular form and great intensity, and the cyclonic rains of greater area, more simple outline, and usually of less intensity. I had gone a considerable distance in studying the relation of the rain-fields to the tracks of barometric depressions; but postponed the preparation of a paper until means could be found of getting more precise definition of the tracks. In the new conditions I hope that this research will be carried out and I believe it will possibly prove useful in weather forecasts.

(5.) Other Investigations.—Material has been accumulating for a general discussion of the relation of evaporation from a free water surface to other meteorological elements. The annual curves have been published each year since 1905, but their meaning has not yet been fully discussed.

Another investigation for which a great deal of material has been collected is concerned with the deviation from the average of the rainfall of individual years; and the geographical relations of this variation at different stations. The practical importance of this question is great as it is involved in the ordinary method of reducing the means of short records to the average for long periods which is the first process required in the preparation of a map of average rainfall.

Growth of the British Rainfall Organization.—The following Table gives the continuation of the long Table on p. 31 of *British Rainfall, 1909*, showing the date of completion of the annual volume, the

size of the volume as a whole, and of the General Table, and the total number of records it contained. For the purpose of comparison data are given for five earlier years at ten-year intervals.

The Growth of "British Rainfall" since 1910.

Year.	Date in following Year of Signing Preface.				Day of Year.	“British Rainfall.” Total Pages.			General Table. Pages.	Total Records.	
1869	...	March	10	.....	69	.....	176	.....	37	.....	1472
1879	...	June	17	.....	168	.. ...	238	.....	52	.....	2069
1889	...	July	4	.....	185	.....	234	.....	64	.....	2708
1899	...	August	16	.....	228	.....	308	.....	82	.....	3501
1909	...	August	22	.....	234	.....	428	.....	111	.....	4681
<hr/>											
1910	...	August	15	.....	227	.....	440	.....	126	.....	4874
1911	...	August	5	.....	217	.....	496	.....	152*	.....	5074
1912	...	July	31	.....	213	.....	468	.....	165†	.....	5272
1913	...	July	25	.....	206	.....	476	.....	168	.....	5370
1914	...	July	21	.....	202	.....	448	.....	161	.....	5453
1915	...	August	14	.....	226	.....	338	.. ..	133‡	.....	5412
1916	...	August	16	.....	228	.. ...	306	.....	129	.....	5192
1917	...	Sept.	28	.....	271	.....	288	.....	123	.....	5085
1918	...	July	23	.....	204	... ..	310	.....	121	.....	4998

* Introduction of Divisional Maps in England and Wales.

† " " " " Scotland and Ireland.

‡ Removal of " "

The drag of the war is shown in the falling back of the date of completion since 1914, after it had advanced by degrees to the extent of a whole month from 1909, and had become as early as at any time since 1890. The high-water mark of mere bulk in the volume was reached in 1911, but the whole of the subsequent falling-off is not due to the war alone, for the adoption of the wider page in 1914 allowed a quite perceptible amount of printed matter to be added to each page, and so reduced the number required. The number of records published increased steadily to 1914, when 5,453 appeared, and the falling off had begun to slacken by 1917. The fact of the falling-off being so inconsiderable at its worst is the best possible proof of the hold which the voluntary system of collecting observations has taken on the people of the country. As an indication of the growth of the scientific treatment of the statistics I may compare the volume for 1917, which represents the extreme of war-time depression, with that for 1893, to which date we must go back to find a volume with the same number of pages. In 1893 there were only 70 pages of the General Table, giving figures for just under 3,000 stations, as against 123 pages with figures for

just over 5,000 stations in 1917. Of the letterpress, in 1893 there were 120 pp. of Remarks by Observers, and only 98 pp. of varied statistics and discussions, as against 155 pp. in 1917. It is worth while to compare the space occupied in the two years :—

	British Rainfall, 1893.	British Rainfall, 1917.
Report	2 pp.	8 pp.
Special Articles	12 „	18 „
Staff of Observers and Obituary	18 „	9 „
Heavy Rains in Short Periods.....	5 „	4 „
Heavy Rains on Rainfall Days	11 „	24 „
Droughts	11 „	6 „
Monthly Rainfall	10 „	38 „
Yearly Rainfall	7 „	15 „
Rain Days and Rain Spells	—	11 „
Duration of Rainfall	—	11 „

The most remarkable features are the much greater space given to the discussion of heavy rains on rainfall days, the duration of rainfall and especially of the rainfall of the months and of the year. It should be noted that not only has the number of pages devoted to these matters been greatly increased but that the discussions deal with a far greater mass of statistics and are largely based on cartometric methods introduced since 1900.

The number of complete annual rainfall records received during the nine years since the Trustees became responsible exceeds by about 15 per cent. the number received in the ten previous years. The number of complete yearly records preserved at 62, Camden Square, is now approximately as follows :—

	1677 to 1909	1910 to 1918	Total
England	104,237	35,651	139,888
Wales and Islands .	9,624	4,083	13,707
Scotland	22,813	6,969	29,782
Ireland	8,280	2,629	10,909
Total	144,954	49,332	194,286

Thus it appears that since 1910 the number of records stored has been increased by one-third and the whole number is probably not far short of 200,000.

To the comparison of number of records and amount of income including subscriptions received in two periods of seven years, each

twenty years apart, given in *British Rainfall, 1909*, I now add the period 1908-14 giving the two previous averages for comparison :—

	1908	1909	1910	1911	1912	1913	1914	Mean		
No. of Records	4538	4681	4874	5074	5272	5370	5453	5037	3621	2233
Income, £	1025	1080	1279	1421	1409	1413	1369	1285	986	766

These figures show the steady growth of the number of records dealt with, the impulse in the amount of the income received after the Trustees came into office, and the relapse in the later years.

To complete this discussion I add a Table, part of which appeared in the article in *British Rainfall, 1909*, to which so many references have been made. It gives for each year since 1900 a comparison of the number of subscribers and of records with the amount of the portion of the income contributed by subscribers. If we assume that there are as many rainfall Observers as there are records received it is seen that the proportion of Observers who are also subscribers (*i.e.*, who pay even the half-price rate of 5s. for a copy of *British Rainfall*) fell gradually from one-third to one-quarter of the number of Observers; while the amount contributed per subscriber fell from an average of 17s. 2d., in 1900, to 15s., in 1912, but since that time it rose to 16s. 7d., in 1917. The figure for 1918 is misleading in this respect as it is inflated by two special gifts to meet the

Year.	No. of Subscribers.	No. of Records.	No. of Subscribers to 100 Records.	Total Amount.			Mean Amount per Subscriber.		Mean Amount per Record.	
				£	s.	d.	s.	d.	s.	d.
1900	1120	3493	32	962	5	6	17	2	5	6
1	1197	3506	34	989	10	0	16	11	5	8
2	1134	3636	31	926	15	0	16	4	5	1
3	1224	3829	32	1000	13	8	16	4	5	3
4	1287	3982	32	1011	9	0	16	0	5	1
5	1297	4096	32	1054	14	6	16	3	5	2
6	1341	4259	31	1050	19	7	15	8	5	0
7	1354	4345	31	1074	16	2	15	10	5	0
8	1328	4538	29	1025	0	4	15	5	4	9
9	1438	4681	31	1080	12	4	15	0	4	7
1910	1416	4874	29	1085	15	3	15	5	4	6
1	1496	5074	29	1131	15	8	15	4	4	6
2	1509	5272	29	1129	6	2	15	0	4	3
3	1526	5370	28	1170	10	9	15	5	4	4
4	1459	5453	27	1125	4	9	15	5	4	1
5	1467	5412	27	1134	0	5	15	5	4	2
6	1347	5192	26	1094	11	3	16	2	4	3
7	1328	5058	26	1102	17	10	16	7	4	4
8	1345	4998	27	1323	13	11	19	8	5	4

special difficulties of the year and to help to settle the deficit of the year before. The expenditure of the Organization was maintained at a fairly uniform figure until the last year, the increasing cost of the publications being mitigated by reducing their bulk.

Even before the war it had become apparent that the field of activity before the Organization was growing, and that lack of funds alone prevented developments of great national importance. I doubt if any piece of work of equal magnitude has been maintained for so many years at so small an outlay of money; but by 1913 I had realized that the system was only possible at the cost of the health of the director and staff and that it must be changed.

Government Assistance.—The Trustees after mature consideration decided to apply to the Development Fund for a grant to enable the Organization as already constituted to undertake the extended researches and publications which its healthy growth demanded. An application was sent in on 5th November, 1913, followed at the desire of the Development Commissioners by a special statement of the value of rainfall work to agriculture. The war had broken out before a reply was received, and the reply was naturally a postponement of the matter. But there was added a suggestion that the Director of the Meteorological Office might be invited to consider informally at leisure, in consultation with Dr. Mill and the Meteorological Society of Scotland, the question of making adequate arrangements in future, with due regard for economy, for collecting and publishing reliable records of the rainfall. This suggestion was welcomed by the Trustees as affording a channel by which the desire for co-operation and avoidance of overlapping, referred to in *British Rainfall, 1909*, pp. 35-36, might be gratified. I had several interviews with Sir Napier Shaw, in 1915, and we had gone some way towards preparing a basis of co-operation which should confer on rainfall work the prestige of Government service without depriving it of the advantages of voluntary association, and with the retention of some measure of voluntary control. The absorption of the whole activities of the Meteorological Office in war work caused unavoidable postponement; and the serious accident I met with in the spring of 1918 made it difficult for me to follow out the details of a somewhat complicated scheme. Reflecting that it was the very simplicity and flexibility of the British Rainfall Organization which had enabled it to pursue so successful a career in the past, I suggested to the Trustees

that it would be well to enter into an arrangement with the Meteorological Office, if the Government approved, by which the continuity of the publications, the encouragement of voluntary Observers, the maintenance of the various services to the public, and the interests of the present staff should be secured, but to propose no other restrictions whatever. I proposed, if this were done, to retire from the directorship, thus giving up the right I had retained under the Trust Deed of 1910 to the use of the records and the services of the paid staff for my personal benefit. That reservation was necessary at the time so that I could act as Director without salary and be able to guarantee the financial position of the Organization.

After discussing the matter thoroughly the Trustees accepted this view, and I conferred on the subject with Colonel H. G. Lyons, then Acting-Director of the Meteorological Office in conjunction with whom a basis of agreement was arrived at. This was drafted by Mr. F. Druce and settled by Mr. J. G. Wood, the Trustees who had given so much time and thought ten years ago to the drafting of the Trust Deed.

It is my sincere hope that the step which has been taken will result in a great development of rainfall research and a fuller application of the results, amongst other things, to the arts of water-engineering and agriculture, on the furtherance of which the future of this country so largely depends. I leave the British Rainfall Organization with a regret too deep for many words ; but it will be an unfailing pleasure to remember the many friends it brought me and the strenuous satisfaction of the hard work it entailed. I shall watch with interest as long as I live the progress of the work which for the last nineteen years has been so much a part of myself that without it I shall inhabit a strange and lonely world.

THE RELATION OF RAINFALL TO CONFIGURATION.*

By M. DE CARLE S. SALTER.

ALMOST the first broad generalization which emerged from the study of rainfall observations was that, as a general rule, the amount of precipitation increases with elevation above sea level. This statement has been found to hold good, though with some important modifications and exceptions, for all parts of the world, and it is true in a very special sense for the British Isles. It is evident, however, that, although the relationship between land elevation and rainfall almost always exists, its numerical expression is not always the same. With close study the apparent exceptions and anomalies prove, as is invariably the case with natural phenomena, to throw more light on the true nature of the problem than the instances which follow the rule.

THE PHYSICAL PROCESSES OF RAIN FORMATION.

In order to make clear the interdependence between rainfall distribution and land configuration it is necessary briefly to recapitulate the broader features of what we know of the physical processes of rain formation. For these modern meteorologists are very largely indebted to the researches of Mr. J. Aitken, Mr. W. H. Dinès, and Sir Napier Shaw, among living British meteorologists, whose studies of the thermodynamic conditions of the atmosphere have cleared away much of what was fundamentally wrong in the hypotheses of former schools of meteorology. No investigation of the physical aspects of rainfall formation could, however, hope to solve the problems connected with the geographical distribution of rainfall in this country without the organizing ability of the late Mr. G. J. Symons, who laid the foundation for the systematic observation of the rainfall in all parts of the British Isles, and made possible the cartographical studies of rainfall distribution of Dr. H. R. Mill. It is from the very numerous maps of rainfall distribution constructed by Dr. Mill, during the past eighteen years, that

* Abstract of a paper read before the Institution of Water Engineers, December 13th 1918 (see Proc. Inst. W.E., Vol. XXIII., pp. 45-91.)

practically all our direct information as to the relation of rainfall to configuration in the British Isles must be drawn.

The amount of water-vapour which can exist in a definite volume of air varies in accordance with the temperature of the air. Air which contains the largest possible quantity of water-vapour for its temperature is said to be saturated, and the temperature at which any body of air becomes saturated is known as the dew-point temperature. It follows that if air containing water-vapour be cooled to the temperature of its dew-point, it will *ipso facto* become saturated. Further cooling will bring about condensation of part of the water-vapour until equilibrium is re-established, partly by the lowering of the dew-point occasioned by the diminished quantity of water-vapour remaining, and partly by the release of latent heat in the process of condensation. Such condensation by cooling is the only means known in nature by which water is withdrawn from the atmosphere, and atmospheric cooling is therefore essential for all precipitation.

The natural conditions under which the temperature of large masses of free air may be modified in such a manner as to give rise to changes in its vapour-content are of several kinds. The variation in the amount of heat received from the sun might at first sight appear to be a potent factor in the situation, but the transmission of solar heat to or from the atmosphere is for the most part indirect. Condensation due to temperature variations of this kind commonly takes the form of dew or hoar-frost, or of mist or fog, and the total amount of water accruing to streams from this source is in temperate climates negligible.

Other processes of cooling have been adduced to account for condensation of rain, among the most important of which is the supposed mixing of cold air with warm moist air. As a matter of fact, air currents of different temperatures do not mix readily in nature, and if they by any chance do so, the amount of water released is quite small and seldom forms more than a cloud or fog-bank.

During the last few years the attention of meteorologists has been turned very largely to the study of the upper layers of the atmosphere and observational data are now available bearing on the vertical temperature gradient under various conditions. In England the temperature normally decreases by approximately 17° F. per mile of altitude up to about 7 miles.* The cause of the great and persistent lowering of

* "On the Vertical Temperature Distribution of the Atmosphere over England." By W. H. Dines, F.R.S., *Phil. Trans.*, Royal Society, Series A., Vol. 211, pp. 255-278.

temperature in the upper layers of the atmosphere is to be found entirely in the pressure conditions. Air which has descended to the lowest strata, that is, near the surface of the earth, is compressed by the weight of the super-incumbent air, which is about 15 lb. per square inch at sea level, and the release of latent heat in the process ensures the temperature remaining relatively high. As we ascend the diminishing atmospheric pressure is associated with a diminishing atmospheric density and in obedience to the thermo-dynamic law the temperature is correspondingly reduced. The observed temperature gradient corresponds very closely with the theoretical adiabatic gradient for moist air, a fact which may be taken as sufficient proof, were any needed, of the theory that the cooling is thermo-dynamic in origin.

It should be observed that the mere fact of lower temperature at high levels is not in itself sufficient to account for greater precipitation, because in a quiescent atmosphere the amount of moisture present rapidly adjusts itself to any thermal conditions. Persistent condensation, such as that necessary to produce rain, only occurs, therefore, when moist air ascends from the lower levels of the atmosphere to the upper, carrying with it the water-vapour proper to its original temperature, and at the same time being steadily cooled by expansion as it is released from pressure. In other words, it is not merely the fact of air being at a great height which conduces to its parting with its moisture in the form of rain, but the fact of its having *ascended* to that height from the lower strata. If, therefore, we wish to look for the causes of rainfall it is necessary to examine the conditions under which air is forced to ascend.

So far as modern research goes, ascending air currents appear to occur in several entirely different sets of circumstances. These may be grouped in three classes : (i.) Convectional, (ii.) Cyclonic, and (iii.) Orographical.

In considering the relation between rainfall and configuration it is important to notice the characteristic features of these three types. (i.) Convectional rainfall * is caused by the heating of part of the surface layer of the atmosphere which expands and rises above the denser cool air around it. In this country the heat thunderstorm of summer is probably the only important example of this type of rainfall. Thunderstorms are, however, not all of convectional origin. Convectional rain is sometimes excessively heavy, more than 3 inches having been recorded

* For an example of convectional rainfall see map of Rainfall on June 5th. 1910, *British Rainfall*, 1910 p. [114].

in England in the course of an hour on more than one occasion. The heavy rain is, however, always extremely local. Its distribution is apparently only slightly affected by configuration, the more intense rains appearing to occur principally in the low-lying plains of the centre and east of England and the centre of Ireland. In mountainous regions, such as the west of Scotland and in Wales, intense rainfalls of convectional origin are certainly rare. (ii.) Rainfall of the second class is commonly known as cyclonic,* from its association with the passage of atmospheric low-pressure centres or barometric depressions. There is probably some general up-draught of air near the centre of such pressure systems, caused by movements in the upper air of which little is known, but the rainfall directly associated with such up-draught is usually slight. The more important rainfalls under this heading appear to be caused by the interaction of two drifts of air at different temperatures, which cross one another's paths. When this occurs the colder air current forces its way under the warmer and lifts it bodily into the upper regions, thereby bringing about cooling and condensation of moisture. Such rains are seldom intense, though occasionally very persistent. They are very much more widespread than convectional thunderstorm rains, and, if true to type, are absolutely independent of land configuration. They sometimes, however, occur in conjunction with orographical rains (type iii.). Cyclonic rains are fairly frequent in the British Isles, but as very heavy rains are comparatively rare. (iii.) Orographical rains† are caused by the interference of rising land in the path of moisture-laden wind, the horizontal wind being forced upward as it progresses over the surface of the sloping land. They are liable to occur with a considerable range of intensity whenever sea winds of sufficient force blow. Except on rare occasions these rains are not very heavy, but they are extremely persistent and usually very widespread. Their great importance lies in the fact that the main controlling factor, the rising land, is always operative, and, of course, always in the same place, being in fact a permanent instead of an intermittent controlling cause. The great frequency of winds from the sea in the British Isles, the existence of a coast-line on all sides, and especially the concentration of the great bulk of the elevated land near the west coasts, in the path of the prevailing south-westerly winds, carrying the water they have taken up in their passage over the Atlantic Ocean,

* For an example see map of rainfall on May 17th, 1915, *British Rainfall*, 1915, p. [67].

† For example, see map of rainfall on April 15th, 1913. *British Rainfall*, 1913, p. [117].

combine to render orographical rainfall far more frequent than any other in this country. Winds from between south and west blow with greater frequency than those from all other points combined, and are also liable to be of greater force than wind from other quarters. Winds blowing from the east and north have far less moisture carrying capacity than south and west winds, and, moreover, comparatively little elevated land lies near the east coasts of the British Isles, but they are nevertheless not negligible as factors in producing orographical rainfall.

It will be clear from the foregoing summary of the principal facts in connection with rainfall formation, that on any individual day almost any conceivable rainfall distribution may occur, and the orographical features of the land surface may or may not have any association with it. It is only when longer periods are dealt with that the relative frequency of the different types begins to tell. Since 1908 Dr. Mill has constructed and published in *British Rainfall*, maps showing the distribution of the total rainfall of each month over the British Isles. A cursory examination of each map is sufficient to indicate whether on the whole the rainfall distribution was dictated by the land configuration or not, that is, whether orographical rains predominated over the other two classes in combination. In a large number of cases there is quite distinct evidence of the occurrence of considerable orographical rain during the month, but insufficient to make it the dominating factor in the distribution. In following summary these cases have been put in a separate class :—

CLASSIFICATION OF MONTHLY RAINFALL DISTRIBUTION, 1908-1917.

	Number of Instances.											
	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
Well marked orographical influence	10	10	8	9	4	4	2	7	5	5	10	10
Slightly marked orographical influence	0	0	1	1	5	4	8	3	4	4	0	0
No apparent orographical influence	0	0	1	0	1	2	0	0	1	1	0	0

It should be noted, in the first place, that in the four winter months January, February, November and December, well marked orographical influence occurred on every occasion. These months form the period when south-westerly winds are at their greatest frequency and greatest average velocity. Convectional rains are probably completely absent and cyclonic rains, though not infrequent, are commonly less heavy than in summer, and seldom occur except in association with orographical rain.

During May to October inclusive, orographical influence was apparent in 55 out of the 60 months, but in 28 cases it was not well marked, leaving 27 months, or 45 per cent., with well marked influence, but even these were seldom so definitely characteristic as was the case in the winter. July, in 8 out of the 10 years, exhibited a weak relationship between the rainfall distribution and the configuration. This is the month of greatest frequency of convectional rains, and purely cyclonic rains are also frequent, whilst orographical rains are at a minimum. In the whole ten years there were only six months, two in June and one each in March, May, September and October, with a rainfall distribution wholly devoid of orographical influence. It is clear that the winter rainfall is most strongly influenced by the configuration of the land, but during the summer half-year, whilst orographical influence is nearly always apparent, it is not overwhelmingly strong, and occasionally it is entirely wanting.

If the period considered is longer, say one year, orographical rain invariably preponderates. Annual rainfall maps exhibit a strong resemblance in the type of distribution, and a marked correlation between the rainfall and the elevation of the land, giving abundant proof of the truth of the above statement. One year's rainfall observations do not, however, fix the true normal distribution. An individual year's rainfall may at any place fall as much as 40 per cent. below or rise as much as 50 per cent. above the average, and the amount of abnormality varies largely from one part of the country to another every year. It is thus clear that the extent to which orographical rainfall preponderates over other types in the course of a year is variable. The variability diminishes if instead of studying the rainfall of a single year we consider the average during a number of years, and the average of thirty to forty years probably gives nearly a constant for amount, and consequently for distribution also.

During the last eighteen years Dr. Mill has constructed a very large number of maps of the average rainfall for thirty-five years in various parts of the British Isles, the majority of which are still unpublished.

The foregoing portion of this paper outlines the physical laws of rainfall; the remainder is devoted to more quantitative statements of their operation, with a few selected examples and generalized results, which are rather illustrative than in any way comprehensive.

In all that follows the expression "prevailing wind" must be taken to mean a wind from some quarter between south and west. The words

“windward” and “leeward” must be construed in the same sense. The records quoted are in every case the average annual rainfall at the station in question for a period of 30, 35 or 40 years, in the great majority of cases 35 years. When no complete record of the required duration was available the average of a shorter period has been corrected by means of one or more adjacent long records, so that all figures quoted may be regarded as comparable.*

RAINFALL AT OR NEAR SEA-LEVEL.

No satisfactory rainfall records exist of the average amount of rain which falls annually over the sea itself in the neighbourhood of the British Isles. If we could obtain trustworthy information on this point we should presumably have a measure of the amount of non-orographical rainfall which falls over the land generally, since, except possibly quite close to the shore, no orographical rainfall could occur over the sea.

There are, however, numerous rainfall records at stations at or near sea-level, and it is instructive to examine the variations of average rainfall under these conditions.

On the east coast of Great Britain the smallest average annual rainfall invariably occurs on the shores of the sheltered estuaries.

Station.	Altitude.	Rainfall.	Station.	Altitude.	Rainfall.
	<i>ft.</i>	<i>in.</i>		<i>ft.</i>	<i>in.</i>
Shoeburyness ..	13	19·3	Boston ..	11	23·4

There is a small but perfectly distinct increase in the rainfall at similar elevations at less sheltered stations on the coast.

Station.	Altitude.	Rainfall.	Station.	Altitude.	Rainfall.
	<i>ft.</i>	<i>in.</i>		<i>ft.</i>	<i>in.</i>
Walmer	20	25·9	Hornsea ..	30	26·8

The only other conspicuous variation near sea-level on the east coast appears to be a general increase from south to north for stations with similar exposures.

On the east coast of Ireland the sea-level rainfall values are higher than on the east coast of Great Britain.

Station.	Altitude.	Rainfall.	Station.	Altitude.	Rainfall.
	<i>ft.</i>	<i>in.</i>		<i>ft.</i>	<i>in.</i>
Courtown ..	60	35·0	Donaghadee ..	40	31·7

* Reference to large scale contoured maps is necessary in order to follow the the discussion in detail.

On the south coast of England the average annual rainfall at sea-level exhibits a decided increase from east to west.

Station.		Altitude. Rainfall.		Station.		Altitude. Rainfall.	
		<i>ft.</i>	<i>in.</i>			<i>ft.</i>	<i>in.</i>
Dymchurch	..	12	25·4	Ventnor ..	..	81	29·2
Bognor ..	..	15	26·0	Devonport	..	20	36·7

There are, however, exceptions to this otherwise nearly uniform increase, relatively smaller falls being observed at sheltered stations, and relatively larger falls at some stations in the proximity of high land.

The west coast of Great Britain differs in some essential respects from the east and south coasts. The most notable differences from the point of view of sea-level rainfall are the much more indented coast line, especially in Scotland, where sea lochs extend inland in many places to distances of 20 or 30 miles, and over a considerable portion of the coast the existence of high mountains within a few miles of the sea, especially in the north. The sea-level rainfall is everywhere higher than in the south and east, and exhibits a striking, though not uniform increase from the south to north.

Station.		Altitude. Rainfall.		Station.		Altitude. Rainfall.	
		<i>ft.</i>	<i>in.</i>			<i>ft.</i>	<i>in.</i>
Scilly ..	..	40	32·7	Whitehaven ..	..	21	41·7
Barnstaple ..	..	25	37·1	Auchencairn ..	..	50	46·8
Castle Malgwyn		30	43·7	Eallabus (Islay)		68	48·8
Aberdovey ..	..	22	37·8	Quinish (Mull)		35	56·6
Holyhead ..	..	48	35·0	Arisaig ..	..	30	61·8
Southport ..	..	38	32·7	Scalpay Island ..	..	4	74·4
Barrow ..	..	36	38·1	Bendamph ..	..	25	86·5

The sea-level rainfall on the west coast of Ireland is higher for the same latitude than that in Great Britain, and shows, on the whole, the same tendency to increase from south to north.

Station.		Altitude. Rainfall.		Station.		Altitude. Rainfall.	
		<i>ft.</i>	<i>in.</i>			<i>ft.</i>	<i>in.</i>
Darrynane ..	..	13	49·9	Ennistymon ..	..	37	46·5
Valencia Island		12	56·0	Killybegs ..	..	65	60·6

The rainfall near sea-level at places situated on the shores of sheltered estuaries and sea lochs on the west coasts shows wide variations from that at more exposed coast stations. The reasons for these variations involve a consideration of circumstances which will be more conveniently dealt with later.

Except in the case of certain peculiarly situated spots, the average annual rainfall at inland stations at or near sea-level does not differ appreciably from that on the nearest coast; the tendency being on the whole for it to be slightly lower.

The most conspicuous low-lying plain in the British Isles is the Fen District, over the whole of which the average annual rainfall is less than 25 in., falling to 22·1 in. at Cambridge (35 feet), and 23·0 in. at March (10 feet).

A consideration of the facts enumerated above appears to justify the conclusion that even at elevations only a few feet above sea-level considerable orographical influence affects the amount of rainfall. This is shown by the pronouncedly larger falls on the west coasts, and slightly larger falls on the south coasts than on the east, an effect which seems only possible on the hypothesis that the rain-bearing westerly and south-westerly winds begin to deposit their moisture freely immediately on coming into contact with the land. After passing across the British Isles the available moisture must be diminished in an important degree, accounting for the relatively small rainfall on the east coast. Such orographical rain as is derived from the North Sea and carried by easterly or north-easterly winds is certainly very much smaller in quantity than that from the south-west quarter, but it is probably to this effect that the relatively high rainfall on the elevated land in eastern Aberdeenshire, the North and East Ridings of Yorkshire and Norfolk, is due. The diminished fall on the shores of estuaries on the east and to some extent on the south coast is obviously due to shelter from rain-bearing winds. It will be observed that the fall is smallest when the shelter is on the south or west side. A similar, but less marked diminution, is to be noted in sheltered estuaries on the west coast.

THE INCREASE OF RAINFALL ON WINDWARD SLOPES.

Except in a few special cases the average rainfall increases with increased altitude, but the rate of increase per 100 feet varies within wide limits. It is of interest to study the conditions under which such variations occur.

We may first take the simple case of rising land facing the sea, with a gradient approximately parallel to the track of the prevailing wind. Such

conditions occur along the slopes of the South Downs in Sussex and part of the eastern extremity of the North Downs in Kent.

Station.	Altitude.	Rainfall.	Increase per 100 ft.	Station.	Altitude.	Rainfall.	Increase per 100 ft.
	<i>ft.</i>	<i>in.</i>	<i>in.</i>		<i>ft.</i>	<i>in.</i>	<i>in.</i>
Bognor ..	15	26.0	—	Brighton ..	32	28.7	—
Eartham ..	230	29.5	1.6	Patcham ..	207	31.8	1.8
Selhurst ..	300	32.2	2.2	Pyecombe ..	392	35.6	1.9
Bepton ..	554	37.0	2.0				

The above seem to suggest a fairly uniform increase of from 1.5 to 2.0 in. per 100 feet, but the rate may be reduced if the hill is less continuous, for example :—

Station.	Altitude.	Rainfall.	Increase per 100 ft.	Station.	Altitude.	Rainfall.	Increase per 100 ft.
	<i>ft.</i>	<i>in.</i>	<i>in.</i>		<i>ft.</i>	<i>in.</i>	<i>in.</i>
Birling Gap ..	40	26.9	—	Portslade ..	167	29.0	—
Willingdon ..	599	31.4	0.8	Poynings ..	680	34.3	1.0

The smaller rate of increase in these cases may be attributed to the facility with which the wind may find its way round an isolated hill rather than being forced to ascend over the summit. For the same reason it is usual to find the rainfall lower, for the same elevation, on the slopes parallel to the prevailing wind at the points where the South Downs are intersected by gaps than on the continuous hillsides at right angles to the prevailing winds.

Comparison may be made with similar data for the inland ridges of the south-eastern counties :—

Station.	Altitude.	Rainfall.	Increase per 100 ft.	Station.	Altitude.	Rainfall.	Increase per 100 ft.
	<i>ft.</i>	<i>in.</i>	<i>in.</i>		<i>ft.</i>	<i>in.</i>	<i>in.</i>
Cranleigh ..	175	29.2	—	Edenbridge ..	161	25.9	—
Malquoits ..	400	31.4	1.0	Ide Hill ..	700	30.7	0.9
Ewhurst ..	600	32.2	0.7	Botley Hill ..	870	33.5	1.1

The rate of increase here is smaller than that on the South Downs, an effect probably due to the diminished humidity of the air, and the more pronounced the shelter afforded by the more southerly ridges the smaller does the increase per 100 feet become. A good example is given by the slight rate of increase on the southern side of the Forest Ridges in north Sussex :—

Station.	Altitude.	Rainfall.	Increase per 100 ft.
	<i>ft.</i>	<i>in.</i>	<i>in.</i>
Buxted Park ..	94	30.7	—
Maresfield ..	247	31.2	0.3
Nutley ..	386	31.6	0.3
Crowborough ..	777	35.1	0.6

The falling off of total rainfall at the same altitude with increasing distance from the sea, coupled with the shelter of the intervening hills, is well illustrated by the following. The distance from the sea is measured approximately in a south-westerly direction :—

Station.	Distance from Sea.			Rainfall.	Station.	Distance from Sea.			Rainfall.
	<i>mls.</i>	<i>ft</i>	<i>in.</i>			<i>mls.</i>	<i>ft.</i>	<i>in.</i>	
Bepton ..	15	554	37·0		Chipstead ..	40	550	30·5	
Worth ..	25	558	34·4		Ash ..	50	540	27·0	

In the case of fairly steep ridges close to the sea the maximum rainfall commonly occurs slightly on the leeward side of the crest, irrespective of the altitude of the spot on which it falls. This phenomenon often gives to an individual station, which happens to be so situated, a rainfall greatly in excess of that otherwise proper to its altitude. An example may be seen in the South Downs at Lavington, immediately to the north of the highest part of the Downs, which rise to over 800 feet, but itself at an altitude of only about 250 feet. The average rainfall is 40·1 in., probably the largest observed in any part of the south-east of England.

It is clear from a general survey of the distribution of rainfall in the south-east of England, that the average fall is wholly governed, in the first place by the capacity of the land in the district to produce an uplifting effect on the prevailing winds, and, secondly, by the amount of condensable moisture remaining available in these winds after passing over the land intervening between the sea and the station.

The same conditions hold good in the west, but in this case we have to deal with not only a very much larger sea-level rainfall, but very much more elevated and continuous hill slopes. A fairly good example of slopes facing the sea may be found in central Wales.

Station.	Altitude.		Rainfall.	Increase per 100 ft.	Station.	Altitude.		Rainfall.	Increase per 100 ft.
	<i>ft</i>	<i>in.</i>				<i>ft.</i>	<i>in.</i>		
Aberystwyth ..	15	35·6	—		Aberaeron ..	50	35·6	—	
Goginan ..	290	46·2	3·9		Abermeurig ..	300	46·0	4·2	
Cwmsymlog ..	800	55·5	2·5		Tregaron ..	520	50·0	3·1	
Waenbwl ..	1380	67·4	2·3		Maes-y-bettws	910	66·6	3·6	
Plynlimon ..	1740	94·0	3·4		Towy-fechan	1330	72·1	2·8	
					Cors-yr-hwch	1775	87·5	3·0	

The rate of increase is about double that observed on the South Downs. With the steeper gradients of the Snowdon Range the rate of increase is still further augmented :—

Station.	Altitude. <i>ft.</i>	Rainfall. <i>in.</i>	Increase per 100 ft. <i>in.</i>
Glynllivon ..	100	44.1	—
Nantlle ..	450	61.2	4.9
Llanllyfni ..	751	73.9	4.6
Cwmsilian Lake ..	1100	81.0	3.7
Moel Hebog ..	1500	112.2	4.9
Lluchfa ..	2500	161.0	4.9

The last-named station is one of a group situated in the vicinity of Llyn Llydau on the immediate east of the great escarpment of Snowdon, and presents an undoubted example of the phenomenon already referred to, viz., the occurrence of the maximum rainfall immediately on the lee side of the highest land. If we regard the rainfall at Lluchfa, which is fairly representative of Cwm Llydau, as the result of the obstruction to the prevailing wind caused by a ridge of 3,500 feet altitude, the rate per 100 feet works out at 3.4 in.

The English Lake District presents, a parallel instance to the Snowdon group.

Station.	Altitude. <i>ft.</i>	Rainfall. <i>in.</i>	Increase per 100 ft. <i>in.</i>
Ravenglass ..	80	42.3	—
Sca Fell Pike ..	3200	137.8	3.1
Sprinkling Tarn	1985	128.1	4.5
The Styne ..	1070	176.9	13.6

The last-mentioned is another famous example of the shifting of the maximum rainfall to the leeward, and if we regard the mass of the Great Gable, rising to 2,900 feet, as the controlling factor, we get an increase of 4.8 in. per 100 feet from sea-level, showing a fair agreement instead of the very large and certainly deceptive value of 13.6 in. shown by calculating from the station elevation.

The rate of increase of rainfall per 100 feet on the windward slopes of of the Helvellyn and High Street ridges, which lie in the direct shelter of the central Lake District mountains is in very striking contrast to the high values quoted above :—

Station.	Altitude. <i>ft.</i>	Rainfall. <i>in.</i>	Increase per 100 ft. <i>in.</i>
Ambleside ..	180	76.2	—
Kirkstone ..	1500	98.3	1.7
Grey Crag ..	1750	98.0	1.4

Except where free access to westerly winds exists the rate of increase on the western slopes of the Pennines is small. At the point selected as

an example the Pennines are sheltered by the Snowdon Range, and the conditions may be taken as fairly representative of the less exposed parts of the ridge :—

Station.		Altitude. <i>ft.</i>	Rainfall. <i>in.</i>	Increase per 100 ft. <i>in.</i>
Chelford ..	..	250	29·7	—
Macclesfield ..	..	501	34·0	1·7
Leek ..	..	750	38·2	1·7
Axe Edge ..	..	1600	55·8	1·9

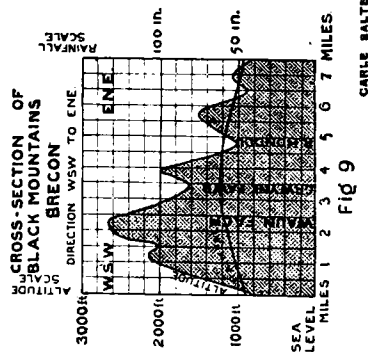
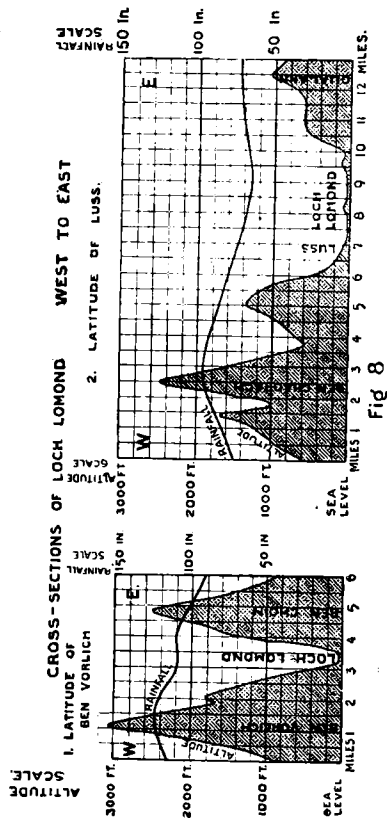
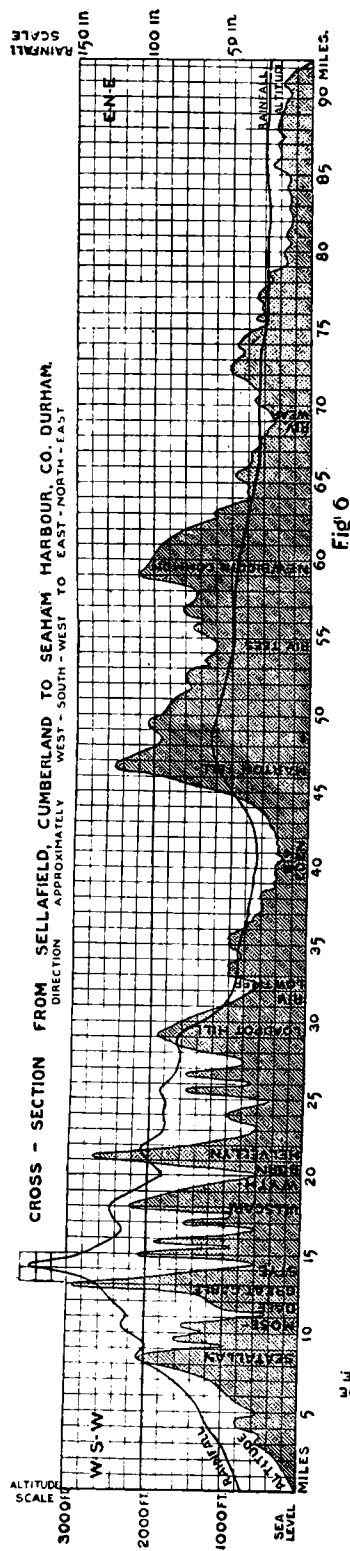
The changes in the rate of increase of rainfall per 100 feet under varying conditions of shelter, gradient, and distance from the sea are well brought out in the cross-section through the Lake District and Pennines in Fig 6. It is significant to note the ready response of the rainfall curve to the changes in the altitude curve in the west, and the diminishing effect of high land to the leeward of the most westerly hill barriers. This diminution in the amplitude of the rainfall curve is particularly noticeable on the Pennines, where the slopes of Marton Fell and Cross Fell, directly facing the prevailing wind, experience a rainfall very much inferior to that of the Lake District.

In order to illustrate the absolute dependence of the average rainfall upon the capacity of the land to exercise an uplifting effect upon the prevailing wind, it is of interest to refer to a single example of low rate of increase which may be explained upon physical grounds. The hill in question, Pendle Hill, rises to a height of 1,800 feet, and enjoys an almost uninterrupted exposure to the rain-bearing winds blowing up the Ribble Valley. Records on the south-western slopes give the following values :—

Station.		Altitude. <i>ft.</i>	Rainfall. <i>in.</i>	Increase per 100 ft. <i>in.</i>
Gawthorpe ..	..	316	41·4	—
Sabden ..	..	500	43·3	1·0
Ogden Reservoir		935	46·2	0·8

The shape of Pendle Hill, which is an isolated mass, may be compared to that of an overturned boat, with the bows pointing to the south-west. On this account the wind coming up the Ribble Valley is able without hindrance to find its way past the rising land without being forced to ascend over the summit except possibly to a limited extent. The case of Pendle Hill is no doubt exceptional, but it is certain that, generally speaking, the rate of increase of rainfall per 100 feet on hillsides parallel to the

THE RELATION OF RAINFALL TO CONFIGURATION.



The shaded portion of each diagram represents the configuration by a cross section along the line indicated, the altitude scale being rather more than 20 times as great as the horizontal scale. The line marked "Rainfall" indicates the average annual rainfall for 35 years in inches, the scale being shown at the right hand end of the diagram.

prevailing wind is lower than it is in the case of slopes directly facing the wind. This tendency is greater according as the hill is more isolated, but the disparity which it brings about is very much larger in the west than in the south and east.

DECREASE OF RAINFALL ON LEEWARD SLOPES.

On the leeward slopes of high land, save in the exceptional cases already referred to, the amount of rainfall diminishes steadily as the prevailing winds gradually descend to lower levels. If these winds have passed over land with an extremely high rainfall they will be largely drained of their available moisture, whereas if they have parted with only a moderate proportion of their water-content the residue available for precipitation on the leeward slopes will be the greater. It should be noted that descending air is being steadily warmed by the increasing pressure above, so that its capacity for retaining moisture is increasing. The tendency for rain to condense is therefore proportionally less than was the case at equal levels on the windward slopes.

In the Pennines the rate of falling off in annual rainfall is about 1 inch per 100 feet above 1,000 feet, increasing to 2 inch per 100 feet below 500 feet of altitude, measuring in each case from the summit of the ridge. The rate is higher in the districts where the Pennine Range is exposed on its western side to the full effect of the south-west wind. It will be observed that in the case of the Pennines the rate of decrease is more rapid at low levels, on the extreme east, than at high levels. This, no doubt, arises from the cumulative effect of constant desiccation of the air.

On the eastern slopes of the Snowdon group of mountains the decrease per 100 feet is larger and more irregular than on the Pennines.

Station.	Altitude. ft.	Rainfall. in.	Decrease per 100 ft. in.	Station.	Altitude. ft.	Rainfall. in.	Decrease per 100 ft. in.
Upper Eigiau	2000	121.5	—	Llyn Dulyn	1632	103.6	—
Caedryn ..	1250	107.2	1.9	Eigiau Dam	1245	84.9	4.8
Lake Cowlyd ..	1168	86.2	4.2	Frith Rhos	1100	71.3	6.1
Lower Brwynog	1000	66.8	5.5	Llanbedr	510	56.2	4.2
Dolgarrog ..	22	50.2	3.6	Tal-y-cafn	75	44.2	3.8

Similar high rates obtain to the east of the Plynlimon range :—

Station.	Altitude. ft.	Rainfall. in.	Decrease per 100 ft. in.	Station.	Altitude. ft.	Rainfall. in.	Decrease per 100 ft. in.
Plynlimon ..	1740	94.0	—	Plynlimon	1740	94.0	—
Dylive ..	1300	71.0	5.2	Pantmawr	1080	65.1	4.4
Carno ..	595	49.9	3.8	Dernol	850	56.1	4.3

The rainfall at the base of a mountain range is commonly lower on the leeward side than on the windward, and the diminution is intensified in the case of land to the leeward of exceptionally wet districts, giving rise to the phenomenon sometimes known as "rain shadow." A good example is seen in the lower Spean Valley, immediately to the north-east of Ben Nevis, where an average of only 53·7 in. falls annually at Roy Bridge (307 feet). In the unsheltered Lochy Valley a few miles west, at a lower altitude, about 70 in. falls. In the Eden Valley, sheltered by the mountains of the Lake District the average rainfall is as low as 34·4 in. at Appleby (440 feet) and 32·2 in. at Carlisle (115 feet), compared with about 50 in. at the same altitudes on the south-west of the Lakes (see Fig. 6). A similar effect is seen in Glengarry near Blair Atholl (420 feet), in the Clwyd Valley in North Wales, and on a larger scale in the low rainfall of the Vale of York, and of the central basin of the Shannon.

RAINFALL IN NARROW VALLEYS.

Many instances are to be found, particularly in the West Highlands, of stations at low elevations, in some cases nearly at sea-level, with rainfall values very much higher than would seem to be appropriate to their altitudes. We may mention, for example :—

Station.		Altitude. Rainfall.		Station.		Altitude. Rainfall.	
		ft.	in.			ft.	in.
Arrochar	..	50	91·8	Fort William	..	33	75·9
Ardlui	..	50	113·2	Glenninnan	..	50	108·8
Glencoe	..	20	84·7	Bendamph	..	25	86·5

These stations are situated, without any exception, in the bottoms of steep-sided valleys of no great width, between lofty hills. These narrow valleys, particularly those transverse to the direction of the prevailing wind, partake of the rainfall of the surrounding hills. This fact alone renders it impossible to compute any general formula for the increase of rainfall with elevation, and makes it necessary to study every record in the light of the configuration of the surrounding country. The degree of completeness with which the rainfall on valley floors represents that on the surrounding plateaux diminishes with valleys of greater width. On Loch Lomond (see Fig. 8) a number of stations about 50 feet above sea-level, on the west bank of the loch, give values of from about 110 inches to 90 inches, where the loch is about half a mile wide. At Luss (70 feet),

where the loch is three miles wide, only 77 in. falls, and at Balloch (91 feet), at the south end of the loch, only 50 in. At Fort William, practically at sea-level, at the head of Loch Linnhe, the average annual fall is 75.9 in., and that on the summit of Ben Nevis (4407 ft.) is 162.6 in., giving an increase of 2.0 in. per 100 feet. Taking into consideration the very steep gradient of the mountain between Fort William and the summit, and also the westerly position of the stations, the rate of increase is a low one, indicating that the fall at Fort William, though only about half that of the higher station, is larger than the fall proper to its altitude at that latitude.

The probability of this phenomenon occurring diminishes with distance from the west coast, and the narrow valleys of the eastern slope of the Pennines on the contrary carry a low rainfall far up among the hills.

Instances are occasionally met with in which the phenomenon of sustained high rainfall over valleys transverse to the prevailing wind with that of the shifting of the maximum fall to the leeward of the highest land, combine to give a rainfall actually higher over the valleys than over the hills; this is the case in some of the deep-cut valleys of South Wales, notably in the Black Mountains of Breconshire (see Fig. 9).

CONCLUSION.

The foregoing statements and examples must be taken only as illustrative of some of the outstanding features of the distribution of rainfall in its relation to configuration. The statements are of necessity somewhat general in character, and the examples frequently somewhat local in application. Any quantitative generalizations must only be accepted subject to the reservation that the limits of variation therefrom are of great magnitude. There appears to be no way in which to arrive at any clear conception of the physical processes underlying these variations, except by the patient study of rainfall records in conjunction with large scale contoured maps. For this purpose we have found the 2 miles to 1 inch Ordnance Survey "layer" map of the British Isles, or its precursor of the same kind produced by Bartholomew, an effective guide to the details of the configuration of the land. On these maps as a groundwork a map of the average rainfall distribution over the country is being gradually built up by the British Rainfall Organization, utilizing every trustworthy rainfall record to which it is found possible to refer.

It is obvious that rainfall observations cannot be made *everywhere*, and since, in order to prepare a trustworthy rainfall map, the compiler must commit himself to an expression of opinion as to the true rainfall at every point upon it, some means must be found of interpolating the most probable figures in places devoid of observations. Enough has been said of the physical processes of rainfall formation, and of the complex nature of the interaction of the various controlling factors, to indicate that a purely mathematical solution is hardly within the limits of possibility. Fundamental knowledge of rainfall distribution must, therefore, be based upon experience gained by observations, and on a foundation of accurate observations one is justified in interpolating by analogy. It is not infrequently the case that after the construction of a rainfall map, upon which the isohyetal lines have been filled in by this method, fresh observations have come to light in places hitherto unrepresented, and it is usual to find that these fit into their places on the map remarkably well, a severe test of the accuracy of the reasoning. In this connection reference is made to Dr. Mill's article, "The Rainfall of the Forth Valley and the Construction of a Rainfall Map" (*British Rainfall*, 1915, pp. 24-34).

If the study of the relation of rainfall to configuration is to advance it is highly important that every opportunity should be taken to start new records of rainfall in districts where no gauges are at present at work. Every one of these must, if conscientiously observed, add something to the sum total of our knowledge, not only of the fall in the immediate vicinity of the gauge, but probably also in other places of similar geographical characteristics which may be inferred from it.

THE STAFF OF OBSERVERS.

THE present volume includes, as a matter of course, only records of rainfall carried on throughout 1918, and, therefore, from the point of view of the number of Observers the Organization was still working under war conditions. A continued falling off in the number of records available was, in the circumstances, practically inevitable, and although we have to record this fact with regret, we feel able at the same time to express our gratification that the loss is so small as it has proved to be. The total number of records published is 4998, the smallest since 1910, but the diminution since *British Rainfall 1917* was published was only 87, and of these losses 60 occurred in England, where, owing to the far greater number of stations a shrinkage in numbers is less serious than it would be elsewhere. The total loss of 17 records in Wales is more apparent than real,

*British Rainfall, 1918, compared with 1917. Number of
Records published.*

	Total Gain.	Total Loss.	Difference.	Per Cent Change in Year.
England.....	206	266	—60	—1·7
Wales.....	23	40	—17	—3·8
Scotland.....	36	44	— 8	—1·0
Ireland	15	17	— 2	—0·7
British Isles	280	367	—87	—1·7

including as it does 9 temporary check gauges erected for a special investigation in the Black Mountain district, the purpose of which has now been served. The remarkably steady figures for Scotland and Ireland are satisfactory in a negative sense, and we confidently hope that the newly awakened interest in meteorology and hydrography of which there are at present many signs, will lead to a substantial improvement in the near future.

In **England** three counties showed no change, 14 showed an increase, and 28 counties a decrease, in numbers. The loss exceeded 5 only in Suffolk, South Devon and the West Riding of Yorkshire, and the gain exceeded 5 in Worcestershire and the North Riding. The gain of 11 in the North Riding is largely owing to the zeal of Capt. A. J. Walker, of Thirsk, who has done much to stimulate interest in the rainfall of the

district, and we are glad to welcome among the newcomers several stations in the uplands of the county hitherto very inadequately represented. The continued falling off in the number of records sent from Devonshire and Cornwall is greatly to be deplored, and we appeal to our friends in those counties to make an endeavour to get new stations started, particularly at high elevations. In this connection we note with pleasure the formation of a Cornwall Rainfall Association, under the secretaryship of Mr. A. Pearce Jenkin, of Redruth, which, we hope, will provide the necessary rallying point in that county.

Wales shows comparatively little change from 1917, the inclusion of several interesting new records in Monmouthshire having to be set against the loss of one or two of equal value in Glamorganshire. A valuable discovery in Carmarthenshire was the record for Llanybyther, which had not been printed since 1913. We are glad to find that the observations had not ceased, and the missing years' returns have now been received and filed. In Carnarvonshire a valuable record at Penmachno has been discontinued, and we have not received the returns for Cerrig-y-Druidion, which have always formed an interesting comparison with the high level records kept for the Birkenhead Corporation Water Department, but, on the whole, the representation of the district has been well maintained.

In **Scotland** 14 of the 33 counties show no change in numbers, and only one, Argyll, a change of more than 4 in either direction. The most serious losses are some of the insular stations in that county, including the one on Tiree, and several stations that can ill be spared from Perthshire and Inverness. Against this we have to set satisfactory gains in Renfrewshire and Stirlingshire and the return of seven important mountain records at Glen Finlas, in Dumbartonshire. In Perthshire, we are glad to print again the return for Edinchip, near Lochearnhead, and valuable new records at Glenlyon House and Rannoch. Two interesting new gauges have been set up by the British Aluminium Company near Loch Eilde, to the south-east of Ben Nevis, and the distribution in the county is further improved by the new stations on Loch Eil and Loch Laggan.

In **Ireland** 15 counties show no change in their numbers, and 14 of these neither loss nor gain. On the whole there are some signs of improvement, in the south, with 4 new records in Co. Cork, and 3 in Co. Limerick. Of these we are especially pleased to have Bere Island, Glin and Foynes. In Co. Wexford, we lose, we hope only temporarily, the record at Fethard-on-Sea. Of the north of Ireland we can only remain hopeful in that there

are so few losses, though these include two of the very few stations in Donegal. We are glad to recover the record at Cranmore in Co. Mayo, and to include two really valuable new stations in Co. Londonderry, viz., Glenedra Lodge, one of a group of new mountain stations commenced by the Londonderry Corporation, and Garvagh, where records for the past eleven years have come to light.

In the lists the figures following the name of each county indicate the numbers of records lost and gained, the total number appearing in *British Rainfall 1918*, and in heavy type the number of records per 100 square miles of area. The letter *a* stands for the number printed in 1917. In the County of London, for example, *a*—5+4=73 **62** means that 5 of the records printed in 1917 are not available in 1918, whilst 4 new records appear, making the total number 73, or 62 per 100 square miles of area within the county.

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

Years.	England.	Wales.	Scotland.	Ireland.	British Isles.	Change from previous years.	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
1912 ...	3834 ...	429 ...	732 ...	277 ...	5272 ...	+198	4·4
1913 ...	3902 ...	440 ...	749 ...	279 ...	5370 ...	+ 98	4·4
1914 ...	3962 ...	450 ...	753 ...	288 ...	5453 ...	+ 83	4·5
1915 ...	3882 ...	448 ...	794 ...	288 ...	5412 ...	— 41	4·5
1916 ...	3711 ...	440 ...	772 ...	269 ...	5192 ...	—220	4·3
1917 ...	3591 ...	446 ...	778 ...	270 ...	5085 ...	—107	4·2
1918 ...	3531 ...	429 ...	770 ...	268 ...	4998 ...	— 87	4·1

Difference from 1917—

—60 ... —17 ... —8 ... —2 .. —87 0·1

ENGLAND.

London	<i>a</i> — 5+ 4 = 73 62	Hertfordshire	<i>a</i> — 5+ 4 = 78 12
Surrey	<i>a</i> —19+15 = 207 29	Buckingham...	<i>a</i> — 4+ 1 = 39 5
Kent	<i>a</i> — 9+11 = 160 10	Oxfordshire ...	<i>a</i> — 5+ 0 = 58 8
Sussex	<i>a</i> —10+ 8 = 144 10	Northampton	<i>a</i> — 2+ 5 = 74 7
Hampshire	<i>a</i> —13+14 = 157 10	Huntingdon ...	<i>a</i> — 1+ 0 = 7 1·9
Berkshire	<i>a</i> — 7+ 7 = 59 8	Bedfordshire...	<i>a</i> — 0+ 2 = 26 6
Middlesex	<i>a</i> — 2+ 7 = 63 27	Cambridge	<i>a</i> — 1+ 2 = 44 5

ENGLAND—(*continued*).

Essex.....	$a-9+5=107$	7	Rutland	$a-2+1=$	3	2	
Suffolk.....	$a-8+1=$	48	3	Lincolnshire ...	$a-8+4=$	81	3
Norfolk	$a-4+2=$	79	4	Nottingham ...	$a-2+4=$	65	7.5
Wiltshire	$a-3+5=$	64	4.5	Derbyshire.....	$a-6+1=$	84	8
Dorset	$a-6+5=$	71	7	Cheshire	$a-1+4=$	76	7.5
South Devon...	$a-12+4=$	134	8	South Lancs...	$a-7+3=$	106	15
North Devon ...	$a-3+2=$	42	4.5	Central Lancs	$a-4+5=$	80	15
Cornwall	$a-11+6=$	56	4	North Lancs ...	$a-5+3=$	70	11
Somerset.....	$a-15+16=$	136	8	Yorkshire, W.R.	$a-17+4=$	325	12
Gloucestershire	$a-5+0=$	92	7.5	Yorkshire, E.R.	$a-3+1=$	28	2.5
Herefordshire	$a-7+2=$	41	5	Yorkshire, N.R.	$a-9+20=$	110	5
Shropshire.....	$a-4+4=$	45	3	Durham	$a-7+3=$	42	4
Staffordshire...	$a-3+3=$	49	4	Northumberl'd	$a-4+1=$	47	2.5
Worcestershire	$a-1+7=$	61	8.5	Cumberland ..	$a-4+3=$	67	4.5
Warwickshire	$a-3+4=$	49	5	Westmorland	$a-6+1=$	48	6
Leicestershire	$a-4+2=$	36	4.5				

MONMOUTH, WALES, &c.

Monmouth.....	$a-5+8=$	38	7	Flint	$a-1+0=$	13	5
Glamorgan.....	$a-5+0=$	55	7	Denbigh	$a-3+1=$	34	5
Carmarthen ...	$a-0+1=$	13	1.4	Merioneth	$a-1+0=$	14	2
Pembroke	$a-1+1=$	20	3	Carnarvon	$a-6+2=$	43	7.5
Cardigan	$a-0+1=$	15	2	Anglesey.....	$a-2+3=$	15	5.5
Brecon	$a-11+2=$	87	12	Isle of Man ..	$a-0+1=$	10	4.5
Radnor	$a-2+0=$	24	5	Channel Isles	$a-2+2=$	23	30
Montgomery...	$a-1+1=$	25	3				

SCOTLAND.

Wigtown.....	$a-2+0=$	8	1.6	Selkirk.....	$a-0+0=$	8	3
Kirkcudbright	$a-1+3=$	18	2.0	Peebles.....	$a-0+0=$	19	5.5
Dumfries.....	$a-3+0=$	24	2.2	Berwick	$a-1+0=$	11	2.5
Roxburgh	$a-2+1=$	14	2	Haddington ...	$a-1+0=$	11	4

SCOTLAND—(continued).

Midlothian $a-0+0=58\ 16$	Forfar $a-1+1=39\ 4\cdot5$
Linlithgow $a-1+0=16\ 13$	Kincardine $a-1+0=13\ 3\cdot5$
Lanark $a-1+0=43\ 5$	Aberdeen $a-0+0=40\ 2$
Ayr $a-1+1=34\ 3$	Banff $a-0+0=9\ 1\cdot4$
Renfrew $a-1+4=39\ 16$	Moray $a-1+0=12\ 2\cdot5$
Dumbarton ... $a-3+7=22\ 8$	Nairn $a-0+0=4\ 2\cdot5$
Stirling $a-0+4=37\ 8$	Inverness $a-5+8=57\ 1\cdot4$
Bute $a-0+0=8\ 4$	Ross $a-1+0=23\ 0\cdot7$
Argyll $a-8+2=62\ 2$	Sutherland $a-0+0=9\ 0\cdot4$
Clackmannan $a-1+0=3\ 5\cdot5$	Caithness $a-0+0=11\ 1\cdot6$
Kinross $a-0+0=4\ 5$	Orkney $a-1+1=13\ 3$
Fife $a-1+1=37\ 7$	Shetland .. $a-1+0=6\ 1\cdot1$
Perth $a-6+3=58\ 2$	

IRELAND.

Cork $a-0+4=28\ 1\cdot0$	Louth $a-0+0=5\ 1\cdot6$
Kerry $a-0+1=12\ 0\cdot6$	Longford $a-0+0=4\ 0\cdot9$
Waterford $a-1+0=14\ 2$	Galway $a-0+0=4\ 0\cdot2$
Tipperary $a-2+0=12\ 0\cdot7$	Roscommon ... $a-0+0=2\ 0\cdot2$
Limerick $a-1+3=11\ 1\cdot0$	Mayo $a-0+1=11\ 0\cdot5$
Clare $a-0+0=8\ 0\cdot6$	Sligo $a-0+0=3\ 0\cdot4$
Wexford $a-1+0=8\ 0\cdot9$	Leitrim $a-1+0=2\ 0\cdot3$
Kilkenny $a-0+0=7\ 0\cdot9$	Cavan $a-0+1=4\ 0\cdot5$
Wicklow $a-0+1=13\ 1\cdot7$	Fermanagh ... $a-0+0=3\ 0\cdot4$
Carlow $a-0+1=4\ 1\cdot2$	Monaghan $a-0+0=2\ 0\cdot4$
Queen's County $a-1+1=5\ 0\cdot8$	Armagh $a-2+0=5\ 1\cdot0$
King's County $a-0+0=9\ 1\cdot2$	Down $a-1+0=11\ 1\cdot1$
Kildare $a-0+0=5\ 0\cdot8$	Antrim $a-2+0=16\ 1\cdot3$
Dublin $a-2+0=31\ 9$	Londonderry ... $a-1+2=6\ 0\cdot7$
Meath $a-0+0=7\ 0\cdot8$	Tyrone $a-0+0=4\ 0\cdot3$
Westmeath ... $a-0+0=8\ 1\cdot1$	Donegal $a-2+0=4\ 0\cdot2$

OBITUARY.

THE number of Observers whose death we have to put on record for the twelve months ending June 30th, 1919, is only slightly greater than has been the case for two or three years past, in spite of the fact that during the war years a certain number of deaths failed to come to our notice, so that the present list includes a few names which should properly have appeared earlier. The total number now reported is 95. The age of the Observer when this is known has been added, and it is not without interest to note that the average of the 59 whose age has been ascertained was 76 years, including the very remarkable proportion of 25 octogenarians, of whom 8 were nonogenarians.

The wonderful perseverance in rainfall observing of which the British Rainfall Organization has given so many examples, is borne out by the following list of Observers who have passed away during the year after having carried on records for thirty years or more.

Records of Thirty Years and upwards.

Mr. G. H. Hill	70 years	Mr. D. O'Connell	40 years
Rev. W. Sidgreaves, S.J. ..	53 "	Mr. C. H. Berners	39 "
Mr. A. S. Leslie-Melville ...	49 "	Mr. E. W. Winton	39 "
Mr. T. A. Dorrien-Smith ...	48 "	Mr. N. P. Sharman	38 "
Rev. Canon M. B. Cowell ...	46 "	Rev. O. H. Cary	33 "
Dr. F. Fawssett	46 "	Mr. F. Garrett	33 "
Mr. B. P. Selby	46 "	Lt.-Col. D. Rintoul	33 "
Mr. C. F. Bailey	45 "	Mr. T. S. Smithson	33 "
Mr. J. Watson	43 "	Mr. C. T. Maw	30 "
Mr. E. Button	40 "		

It is a melancholy pleasure year by year to pay a last tribute to those of our helpers who have died since our last volume was published, though for obvious reasons biographical notes can be given only for a few. The list on pages [67] and [68] includes no fewer than three veterans of the Indian Mutiny, three highly distinguished consulting water engineers, and a large number of old friends of the Organization whose names had become "familiar in our mouths as household words." There are, as far as we know, no instances in the list this year of death on active service, but probably no man who sacrificed his life for his country during the Great War did so more devotedly than the late Lord Rhondda, who, as

Mr. D. A. Thomas, was among the Observers reporting to the Organization until more urgent calls upon his time made this no longer possible.

MR. GEORGE BUNYARD whose firm under the name of G. Bunyard and Co. carried on observations of rainfall since 1900 at Maidstone, was a notable personality in the world of horticulture. Born in 1841, and becoming a member of the firm in 1863 his remarkable ability and vigour soon led not only to the building up of a business of almost world-wide fame, but also to the development of scientific methods which have benefited fruit growing generally. In 1896 Mr. Bunyard became Master of the Fruiterer's Company and he was one of the first recipients of the Victoria Medal of Horticulture. He was a prominent member of the Royal Horticultural Society and was the author of a number of works on the subject to which his long life was devoted.

REV. CANON M. B. COWELL, who died in January, 1919, at the great age of 85 years, had been vicar of Ash Bocking, near Ipswich, since 1862, and though his association with the British Rainfall Organization did not commence until ten years later, he sent observations regularly for close upon half a century, and maintained a keen interest in them until the last.

MR. R. H. CURTIS was for 51 years on the staff of the Government Meteorological Service from which he retired in 1912. In his official capacity as Superintendent of Instruments and Observations to the Meteorological Office, Mr. Curtis carried out important experiments with a view to devising and improving instruments, and his name will always be specially remembered in connection with improvements in the Campbell-Stokes sunshine recorder. For the last fifteen years or so of his life, Mr. Curtis lived at Warlingham, where he made a valuable series of meteorological observations until compelled by ill-health to give them up a few weeks before his death.

DR. WALTER DE WATTEVILLE, whose rainfall records, although published under the name of the Scottish Meteorological Society, have appeared in *British Rainfall* since 1896, was a native of Berne, Switzerland. He was one of the earliest supporters of the open-air treatment of tuberculosis and was director of a sanatorium, where much valuable work was done. Keenly interested in scientific work, Dr. de Watteville maintained

a meteorological station at Kingussie, which gave climatological records of peculiar interest and importance and established the reputation of the somewhat rigorous climate of the upper Spey Valley, as favourable for the treatment of consumptives.

MR. GEORGE HENRY HILL, M. Inst., C.E., was one of the most eminent of the group of great water engineers who took part in the extraordinary developments of the latter half of the nineteenth century. A pupil of the famous Bateman, Mr. Hill was put in charge of the Manchester Waterworks in Longdendale in 1849, and for seventy years maintained his connection with the Corporation Water Services. During this period he designed and carried out the world-renowned Thirlmere scheme, by means of which at the present time about 30 million gallons of water, the bulk of the supply to the city, is conveyed daily from the Lake District and meets the needs of a population of about one and a half millions. He was up to the time of his death greatly interested in the new scheme for the utilization of Haweswater as a source of future supply to Manchester. Mr. Hill had a wide consulting practice in connection with Water Supply, and was, until a few years ago, a familiar figure in the Committee rooms of Parliament. Some of the most valuable rainfall records in the north of England, particularly in the Lake District, were commenced and maintained under his direction, and probably few men have done more in the practical application of rainfall data to economic purposes.

LT.-GEN. SIR J. HILLS-JOHNES, V.C., one, and quite the most distinguished, of the few veteran survivors of the Indian Mutiny, died at his home at Dolaucothy, in Carnarvonshire in January, 1919. As Captain Hills, he served throughout the historic period of Indian and frontier wars and was present at the siege and storming of Delhi, the relief of Lucknow, and innumerable other engagements, being awarded the V.C., medal and clasps. He later took part in the Abyssinian and Lushai campaigns, and accompanied Lord Roberts in the march to Kabul. For his brilliant services in the Afghanistan campaign of 1880-81, he was created a K.C.B., and was the recipient of a special vote of thanks from Parliament. On his marriage to Miss Johnes, in 1882, General Hills assumed the additional name of Johnes, and retired from active service to take up his residence at Dolaucothy. He took great interest in the rainfall observations and read the gauge personally to the time of his death.

MR. A. S. LESLIE MELVILLE, of Branston Hall, Lincoln, was a typical example of the volunteer rainfall Observer in whose unswerving and loyal support lies the great strength of the British Rainfall Organization. As an instance, one of many, of the unassuming avowal of what is in reality a remarkable achievement, and a purely gratuitous service to science, we may quote from a letter which Mr. Leslie Melville wrote to us some four years ago :—

“I think I have kept the Rainfall with one exception for nearly 50 years past at Branston, or part at Longhills, but that is in the Parish of Branston, so I suppose it all counts as one.”

COL. CHARLES MCINROY, C.B., Indian Mutiny veteran, had a distinguished military career, including service in the Abyssinian and Egyptian campaigns, and the Burmah Expedition of 1885-6. He carried on regular observations of rainfall at his seat, The Burn, near Edzell, in Kincardineshire for twenty-one years, and his annual letters, accompanying his returns in January, never failed to enliven the otherwise somewhat monotonous work of that month in the office at 62, Camden Square.

MR. DANIEL O'CONNELL, grandson of the “Liberator” whose name he bore, was the head of the old Roman Catholic family of O'Connell, whose chief seat was Darrynane Abbey, in Co. Kerry. Mr. O'Connell took up the observation of rainfall in 1870, and never lost his enthusiasm till his death at the ripe age of 84. It is only a few years since that he wrote to us that for long he had made a practice of a daily swim in the Atlantic during the summer half-year and this enabled him to form an accurate judgment of the coming weather from the temperature of the water, a fact which he connected with the varying quantity of Arctic ice in the Atlantic. We learn with pleasure that the extremely valuable rainfall observations at Darrynane Abbey will be continued.

SURGEON-GENERAL CHARLES PLANCK, who died on August 23rd, 1918, was born in 1831. He served for thirty-two years in the Bengal Medical Service, including the Mutiny year, and marched to the relief of Cawnpore and Lucknow, officiating as a field-surgeon. He was later Inspector-General of Prisons in Burma and Sanitary Commissioner and Superintendent-General in the North-west Provinces and Oudh. He was

a keen sportsman and an excellent swimmer and is said to have played tennis up to the age of 78. His observations of rainfall at Lyden Croft, near Edenbridge, were carried on for nineteen years, from 1900.

LORD RHONDDA, more familiar in our pages as Mr. D. A. Thomas, of Llanwern, became famous as one of the leading colliery proprietors in South Wales. His great business acumen, and unfailing insight, marked him out as one likely to solve some of the most difficult and harassing problems which confronted the Government when the war had reached its most critical stage, and he was appointed President of the Local Government Board in December, 1916, and six months later charged with the onerous duties of Food Controller. How well he carried out the unenviable task few will fail to remember without gratitude, and that he gave his life for his country in the time of her greatest need is the least which can be said of his death from over-work at an age which to a man of his powers was but the prime of life.

FATHER WALTER SIDGREAVES, S.J., director of the Stonyhurst College Observatory, was better known for his work on astronomy, solar physics and magnetism than as a meteorologist, but it is to his great interest in scientific pursuits that we owe the equipment in 1866 of a complete installation of meteorological instruments at Stonyhurst and their regular observation since that time. Father Sidgreaves took part in four scientific expeditions in company with the late Father Parry, and was the author of a large number of valuable papers on the subjects to which his scientific life was devoted, more especially stellar and solar spectroscopy. His kindly and retiring disposition endeared him to all who came into contact with him and during his long life he set an example of devotion to duty, which kept him at his post until his death at the advanced age of 82. His career exemplifies the great debt which students of natural science all the world over owe to the zeal of the numerous members of the Society of Jesus who have devoted so much ability to its pursuit.

MR. JAMES WATSON, waterworks engineer to the Corporation of Bradford, was a native of Douglas, in Lanarkshire, where he was born in 1844. He enjoyed an extensive practice as a consulting engineer, particularly in the north of England, and was one of the leading men of his profession. His work in connection with the Bradford water supply

was of a peculiarly difficult nature owing to the requirements of the special industries of the town and his services were highly valued by the Corporation. Mr. Watson was, we believe, responsible for a greater number of rainfall records appearing in *British Rainfall* than any other individual, as a glance through the general tables for Yorkshire since 1891 will readily show.

Observers deceased to June 30th, 1919.

Small Capitals designate Observers with records of 30 years and upwards.

Acland, Sir C. T. Dyke Acland, Bt. (76)	Killerton, Devon.
Antrim, Rt. Hon. the Earl of (68)	.. Glenarm Castle, Co. Antrim.
Addams-Williams, Rev. Alfred (86)	.. Panteg Rectory, Mon.
BAILEY, CHARLES FREDERICK, J.P., D.L. (82)	Lee Abbey, Lynton.
Baker-Gabb, Richard (79)	.. The Chain, Abergavenny.
Balston, W. E. .. ..	.. Barvin Park, Potters Bar.
Basing, Lord (59) .. ..	.. Hoddington House, Hants.
Bazley, Sir Thomas Sebastian, Bt. (90)	Kilmorie, Torquay.
BERNERS, CHARLES HUGH (77)	.. Woolverstone Park, Ipswich.
Berry, Miss .. ..	.. Keymer, Sussex.
Briggs, W. .. ..	.. Tordarroch, Pitlochrie.
*Bunyard, George, V.M.H. (78)	.. Maidstone.
Burgess, J. F. B. .. ..	.. Tenby.
BUTTON, EUSTACE, J.P. (90)	.. Clevedon, Somerset.
Buxton, Mrs. Mary Rosalind ..	.. Fritton Hall, Suffolk.
Caldicott, R. B. .. ..	.. Kingswood, Coventry.
Calvert, Dr. George Alfred Crace (48)	.. Llanbedr Hall, Ruthin.
Campbell, R. S. .. ..	.. Achnashie, Rosneath.
Cane, Rev. Alfred Grainger (74) ..	.. Great Paxton, St. Neots.
Carr, Mrs. Elizabeth (90) .. ..	.. Wolstaston Rectory, Shrewsbury.
Carr-Gomm, Francis Culling, J.P., D.L. (85)	Farnham Royal, Bucks.
Carter, Mrs. (90) .. ..	.. Maugersbury, Stow-on-the-Wold.
CARY, REV. OFFLEY HENRY (83)	.. Trusham Rectory, South Devon.
Clark, Godfrey L. .. ..	.. Tal-y-garn, Glamorgan.
Clark-Neill, James .. ..	.. Curling Hall, Largs.
Collen, Daniel (80) .. ..	.. Rowden Hill, Chippenham.
*COWELL, REV. CAN. MAURICE BYLES (85)	Ash Bocking, Suffolk.
*Curtis, Richard Henry (73) .. ..	.. Warlingham.
Davies, C. .. ..	.. Gwern-y-Arglwyd, Radnorshire.
Day, Dr. F. W. Langston .. ..	.. Baldock, Herts.
*de Watteville, Walter, M.D. (60)	.. Kingussie.
Dixon, N. E. .. ..	.. Oundle, Northants.
DORRIEN-SMITH, THOS. ALGERNON (73)	.. Tresco Abbey, Scilly.
Dowson, Miss Sarah Susanna (75)	.. Geldeston, Beccles.
Duncan, Rev. J. B. .. ..	.. Lynturk Manse, Alford.
Durrant, Rev. Charles Aubrey (67)	.. Wetherby, Yorks.
Ebury, Lord (85) .. ..	.. Moor Park, Rickmansworth.
Fawkes, Major Francis (82) .. ..	.. Elmfield, Cheltenham.
FAWSSETT, FREDERICK, M.D. (83)	.. Louth, Lincs.
Finch, John Edward Montague, M.D. (77)	.. Stoneygate, Leicester.
GARRETT, FRANK, C.E. (74) .. ..	.. Aldringham House, Suffolk.
Gibbs, Thomas .. ..	.. Lindfield, Sussex.
Hall, William .. ..	.. Swerford, Oxon.

BRITISH RAINFALL 1918

PART II. :

RAINFALL AND METEOROLOGY

OF

1918.

EVAPORATION AND PERCOLATION IN 1918.

THERE is no change in the list of stations from which records of Evaporation and Percolation are available and the data are given in the same form as last year. Now that the difficulty of obtaining the necessary apparatus is likely to be a less serious obstacle than formerly we take the opportunity of urging anew upon waterworks engineers and others the great need of further information on the subject.

Evaporation at Camden Square, 1885-1918.

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

NOTE.—c indicates condensation.

Rainfall, Percolation and Calculated Evaporation in 1918.

1918.	Grayshott, Hants. Mrs. Lyndon.		Rothamsted, Herts, Dr. E. J. Russell.			
	Rainfall.	Percolation.	Rainfall.	Percolation.		
				20in. Soil.	40in. Soil.	60in. Soil.
	in.	in.	in.	in.	in.	in.
January	4·11	3·89	2·31	2·93	2·04	... *
February	2·21	1·96	1·03	·54	·55	·53
March	1·54	·64	·86	·02	·08	·07
April	3·36	2·86	3·95	3·47	3·53	3·28
May	1·59	·53	2·26	·49	·63	·64
June	1·14	·00	·86	·00	·02	·03
July	4·77	·00	3·22	·66	·70	·62
August	1·18	·00	1·16	·00	·03	·04
September	6·23	2·25	4·97	2·29	2·18	2·04
October	1·75	1·53	1·70	1·09	1·14	1·07
November	3·87	3·12	2·52	2·17	2·07	1·95
December	3·30	3·33	2·84	2·82	2·90	2·75
Year	35·05	20·11	27·68	16·48	15·87	...
Calculated } Evaporation } ...	...	14·94	...	11·20	11·81	...

* Owing to very heavy rain the chambers of this gauge were flooded and no record could be taken.

1918.	Timsbury, Hants. D. Kitchingman, Esq.		Twyford, Hants. D. Kitchingman, Esq.		Harrogate, Yorks. Harrogate Corporation	
	Rainfall.	Percolation.	Rainfall.	Percolation.	Rainfall.	Percolation.
	in.	in.	in.	in.	in.	in.
January	3·64	3·39	3·65	3·98	2·29	·58
February	1·61	·88	1·65	1·16	2·85	·41
March	1·07	·20	·86	·38	1·05	·03
April	2·87	1·55	2·44	1·67	·70	·03
May	1·80	·05	1·90	·25	2·95	·02
June	·81	·00	·87	·00	·64	·00
July	5·25	·00	5·23	·00	4·01	·08
August	2·07	·00	1·99	·00	2·93	·48
September	5·32	1·43	5·81	2·10	6·79	·95
October	1·93	·90	1·47	1·11	1·62	·13
November	3·22	2·64	3·53	2·88	1·36	·15
December	2·77	2·59	2·36	3·08	5·08	·83
Year	32·36	13·63	31·76	16·61	32·27	3·69?
Calculated } Evaporation } ...	...	18·73	...	15·15	...	28·58?

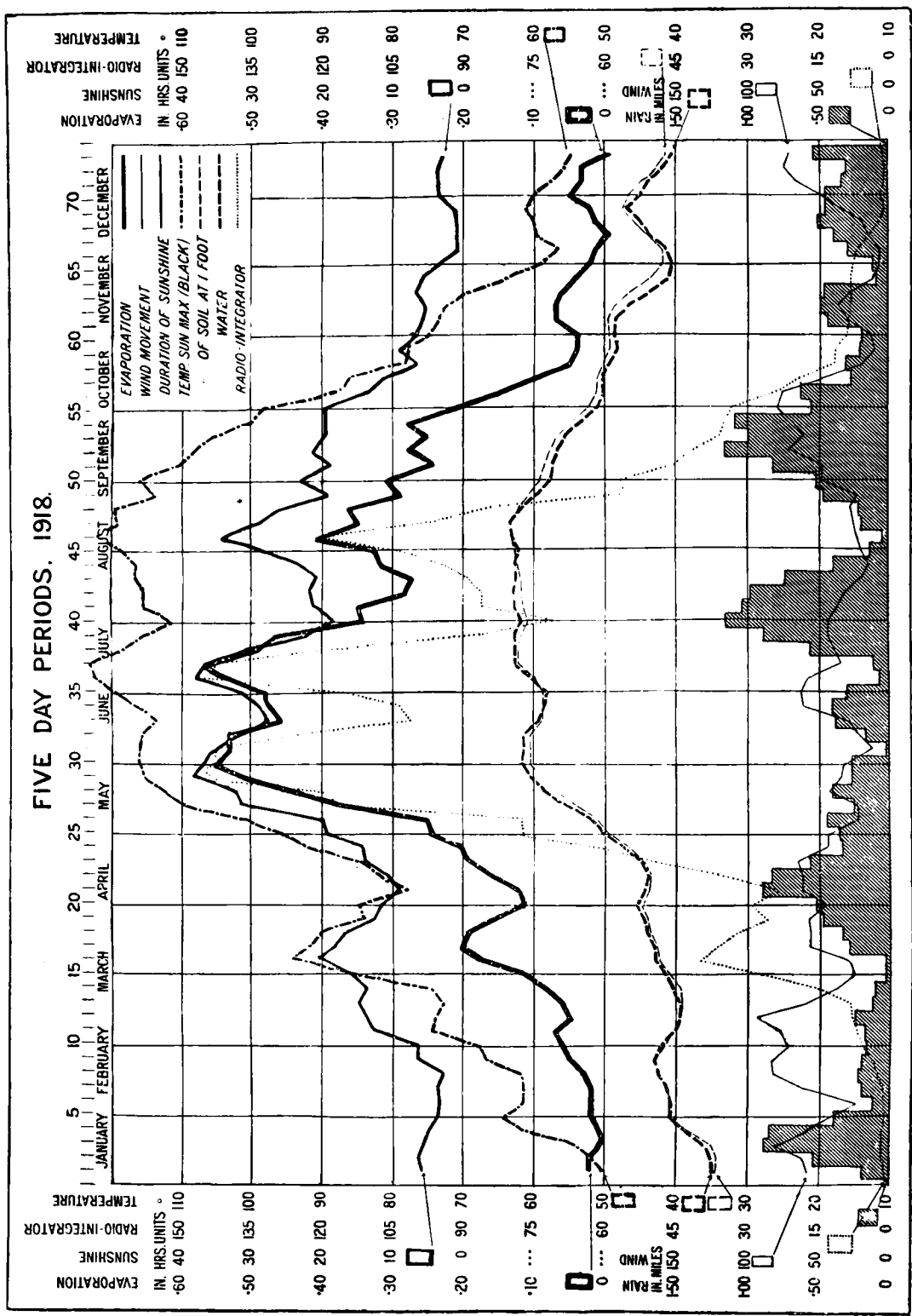
Evaporation in 1918.

	Camden Square.	New Malden.	Isfield Place.	Otter- bourne.	Worstead.	Kennick.	Revesby.
	in.	in.	in.	in.	in.	in.	in.
January	·14	·02	·10	·13	·23	C ·36	C ·09
February	·27	·03	·45	·58	·60	·11	·27
March	·85	·77	1·12	1·48	1·17	1·12	·69
April	·89	·74	1·44	1·76	1·14	1·80	1·10
May	2·38	2·32	3·23	3·51	2·70	2·94	2·53
June	3·01	2·41	2·33	3·60	3·43	3·93	2·66
July	2·59	2·50	3·52	3·68	3·48	3·61	2·61
August	2·04	2·06	2·95	2·88	3·16	2·82	2·38
September	1·69	1·27	2·59	1·95	1·76	1·55	1·47
October	·40	·39	·55	·71	·60	·73	·64
November	·24	·28	·45	·36	·39	·48	·44
December	·16	·14	·28	·03	·28	C ·23	·01
Year	14·66	12·93	19·01	20·67	18·94	18·50	14·71
Average, } 1908-1918 }	15·23	...	19·23	19·48	...	18·50	14·66
Difference	—·57	...	—·22	+1·19	...	·00	+·05
RAIN. { Year	29·69	29·27	32·46	33·24	27·19	38·50	23·22
Average, } 1908-1918 }	27·50	27·45	32·41	32·56	28·07	43·29	25·85
Difference	+2·19	+1·82	+·05	+·68	—·88	—4·79	—2·63

	Southport.	Ardley. No. 1.	Ardley. No. 2.	Lower Laithe.	Harrogate.	Talla Water.	Mean of 13 Records.
	in.	in.	in.	in.	in.	in.	in.
January	C ·04	C ·24	C ·21	C ·07	·08	·57	·02
February	·21	·37	·22	·51	·34	·74	·36
March	·64	·90	·84	·77	·92	·72	·92
April	1·58	1·95	1·83	1·59	1·73	2·00	1·51
May	2·64	2·68	2·47	2·64	2·82	2·75	2·74
June	3·23	3·26	3·07	3·12	3·19	3·18	3·11
July	3·08	2·99	2·84	2·74	3·47	2·79	3·07
August	2·70	2·84	2·49	2·35	2·83	2·42	2·61
September	1·31	1·38	1·27	·94	1·60	1·34	1·55
October	·59	·69	·56	·56	·99	·56	·61
November	·14	·06	C ·04	·12	·29	·20	·26
December	·03	·25	·12	C ·11	·32	·39	·13
Year	16·11	17·13	15·46	15·16	18·58	17·66	16·89
Average, } 1908-1918 } .....	...	17·30	...	...	18·45	17·40	...
Difference .....	...	—·17	...	...	+·13	+·26	...
RAIN. { Year	40·23	30·24	30·93	53·90	32·27	48·68	34·60
Average, } 1908-1918 }	33·56	25·97	...	...	29·04	48·45	...
Difference	+6·67	+4·27	...	...	+3·23	+·23	...

NOTE.—In the table C indicates condensation

EVAPORATION FROM A WATER SURFACE AND OTHER METEOROLOGICAL PHENOMENA.



Stations Recording Evaporation in 1918.

Station.	County.	Observer.	Particulars of Tank.				
			Height Above		Diameter.	Capacity.	
			Ground.	Sea Level.			
			ft. n.	feet.	ft. in.	Gals.	
Camden Square	London	2 Brit. Rainfall Org.	0 3	111	6 0	450	
New Malden	Surrey	5 W. J. Carter, Esq.	0 3*	40	0 8	...	
Isfield Place	Sussex	4 Major H. King.....	0 3	41	4 0	250	
Otterbourne	Hampshire	5 E. C. Rodda, Esq....	0 3	112	6 0	450	
Worstead	Norfolk	2 R. J. Cross, Esq....	0 4	55	2 6	...	
Kennick	South Devon	5 S. C. Chapman, Esq.	0 3	835	6 0	450	
Revesby	Lincoln	3 J. Shaw, Esq. . . .	0 2	130	6 0	450	
Southport	Cen. Lancashire	3 J. Baxendell, Esq..	0 3	37	3 0	112	
Ardsley No. 1...	Yorkshire, W.R.	8 C. C. Smith, Esq....	0 3	395	6 0	450	
" No. 2...	"	" 8	0 3	326	6 0	450	
Lower Laithe	"	" 9 M. R. Barnett, Esq.	0 6†	772	6 0	450	
Harrogate	"	" 11 A. S. West, Esq....	flush	589	6 0	450	
Talla Water	Peebles	1 Messrs. Leslie & Reid	0 3	904	6 0	450	

* Above water. † Varying from 2½ to 9 inches.

METEOROLOGICAL OBSERVATIONS AT CAMDEN
SQUARE IN 1918.

THE Table of Meteorological Observations is compiled from the readings taken at 9 a.m. and 9 p.m. The average, when referred to, is in every case for the 50 years 1860-1909. The rainfall is from the 8-inch rain gauge of the Meteorological Office pattern; the radiation temperature from a black-bulb maximum thermometer *in vacuo* at a height of 4 feet above the ground, and from a link-bulb minimum thermometer laid on short grass and freely exposed to the sky. The radio-integrator was described in *British Rainfall, 1907*, p. 44. Earth temperature is taken by spirit thermometers suspended in iron tubes of 1-inch internal diameter driven into the soil. They are read once daily, at 9 a.m. The shade temperature is from thermometers on a Glaisher Stand, the mean daily temperature being the mean of maximum, minimum, 9 a.m. and 9 p.m. readings. In the table under the heading "Evaporation," c indicates condensation.

THE DISTRIBUTION OF RAINFALL IN TIME.

THE title of this section of *British Rainfall* covers the discussion of the frequency of rain days and the occurrence and geographical distribution of exceptionally dry or exceptionally rainy periods during the year under review. It is necessary, for this purpose, to adhere rigidly to definitions and to confine ourselves as far as possible to rainfall records taken in strict accord with the simple "Rules" which long experience has shown to be necessary in order to render records made by different Observers comparable in detail. The definitions are repeated year by year and the "Rules" are gladly sent to any Observer who cares to ask for a copy. Fortunately the choice of such records is a wide one, and over the greater part of the country the embarrassment lies in the selection of representative stations from a multitude equally suitable, but in the more sparsely inhabited areas, where daily records of any sort are difficult to get, it is sometimes exasperating to find that the most perfectly situated rain gauge for our purpose has evidently been visited only when the Observer "thinks it has rained" instead of every day, thus making the number of "rain days" recorded less than actually occurred or establishing a false "absolute drought" by omitting to record a slight shower in the middle of the night. Since we aim at an equable distribution the number of available records in these districts sets the standard for the remainder of the country, and for the purpose of studying rain days, droughts and rain spells, we have for some years past used one hundred records. A slight improvement in the west of Scotland and Ireland would enable us to double the number for the British Isles as a whole without impairing the equality of the distribution.

In addition to the elements mentioned in the foregoing paragraph the section includes all available records of the measured duration of rainfall in hours during 1918, a subject which every year receives an increasing amount of attention, and, lastly, records of exceptionally intense rainfalls in short periods of time. The data available for these two elements are scanty and no attempt at selection can be made. We therefore print all records of rainfall duration received unless they appear to be untrustworthy, and omit from the list of heavy falls in short periods only those records which fail to reach a lower limit of intensity.

RAIN DAYS IN 1918.

A RAIN DAY is a day on which $\cdot 01$ inch of rain or more is recorded. A fall of rain exceeding $\cdot 005$ in. but less than $\cdot 01$ in. is recorded as $\cdot 01$ in. A fall of rain less than $\cdot 005$ in. is ignored.

The number of rain days which occurred in each month of 1918 at each of the 100 selected stations is set out in full in Table I. on pp. [10] to [12]. The total rainfall during the year and the mean amount of rain per rain day at each station is also added, and the general values for the larger divisions of the Kingdom and for the British Isles as a whole are given. During the whole year the number of rain days experienced in England was nearly everywhere less than 200, the exceptions being the Pennines and Lake District, and the Devon-Cornwall peninsula. In this respect the rain frequency distribution was normal, but it is to be observed that in the east of England generally the number of rain days was considerably in excess of the average there being a very limited area indeed with fewer than 175 days. On the east coast of England the number of rain days was probably about 20 above the average. Although the actual number of rain days increased from east to west, as it invariably does, the excess over the average diminished and was not great in the west generally.

TABLE II.—*Rain Days, 1903-1918, compared with Average, 1892-1911.*

Year.	ENGLAND & 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

The data when plotted on a map show that the lines limiting the areas with under 200, 225, and 250 rain days respectively were close to their normal positions.

The general values for the countries compared with similar records for the previous 15 years are given in Table II., where it will be seen that during the year, over the country as a whole, it rained on 10 days, or 5 per cent., more than usual, the excess in England being 13 days, or 7 per cent., in Scotland 10 days, or 5 per cent., and in Ireland, 4 days, or 2 per cent.

The general values for the countries of mean amount of rain per rain day show only small variations from year to year, but these variations, small as they are, must point to the prevalence of distinct types of rainfall in different years. For all countries the lowest values were observed in 1905, the figure for the British Isles as a whole falling to .17 in.; 1903 was generally the year of largest fall per rain day, though 1915 gave a higher value for England and Wales. Scotland in every year shows larger values for the general mean rainfall per rain day than England and Ireland, which differ but slightly one from the other. The values for 1918 were everywhere high.

TABLE III.—*Mean amount of Rain per rain day, 1903-1918.*
General Values.

	England & Wales. in.	Scotland. in.	Ireland. in.	British Isles. in.
1903.....	.21	.24	.20	.22
1904.....	.17	.20	.18	.18
1905.....	.16	.19	.16	.17
1906.....	.19	.21	.17	.19
1907.....	.18	.20	.17	.18
1908.....	.17	.20	.17	.18
1909.....	.19	.21	.18	.19
1910.....	.20	.22	.19	.20
1911.....	.20	.22	.20	.21
1912.....	.21	.24	.19	.21
1913.....	.19	.22	.20	.20
1914.....	.20	.23	.20	.21
1915.....	.22	.22	.20	.21
1916.....	.19	.24	.20	.21
1917.....	.19	.22	.19	.20 .
1918.....	.20	.22	.21	.21
Average ..	.19	.22	.19	.20

Of the months of 1918 no one had less than 12 days with rain over the country as a whole, the period of least frequency being from March to June, inclusive, with 50 rain days out of 122. September and October were notable for high rainfall frequency with 47 rain days out of 61. At

TABLE I.—*Number of Rain Days in 1918.*

STATION	COUNTY.	Jan.	Feb.	Mar.	Apr.	May.	June	July.	Aug.	Sep.	Oct.	Nov.	Dec.	Total.	Total Rain-fall.	Amount per Rain Day
ENGLAND & WALES.																
St. Pancras, Camden Square	London	16	13	8	20	10	10	17	12	23	13	14	22	178	29.12	.16
Tenterden, View Tower	Kent	19	14	8	15	12	11	15	12	21	17	14	27	185	26.47	.14
Brighton, Shoreham	Sussex	14	12	6	14	7	10	18	9	20	15	11	25	161	26.86	.17
Sandown, Free Library	Hampshire	25	14	14	16	9	12	19	13	22	19	13	26	202	31.70	.16
Petersfield, Ditcham Park	"	15	14	10	16	9	12	19	13	22	19	13	26	188	36.99	.20
Upton	Berkshire	17	16	11	20	11	10	17	12	25	21	14	25	199	26.12	.13
Newport Pagnell, The Croft	Buckinghamshire	15	14	7	17	7	10	18	10	25	18	14	25	180	25.73	.14
Cambridge, Cherryhinton	Cambridgeshire	14	14	8	20	9	9	19	11	24	14	19	24	185	24.76	.13
Southend, Water Works	Essex	18	15	6	20	11	10	20	13	21	17	17	19	187	23.62	.13
Lexden, Hill House	"	16	11	7	20	13	12	21	10	23	16	15	27	191	23.84	.12
Burgh Hall [Varmouth]	Suffolk	18	14	8	16	5	11	17	11	23	19	16	26	184	26.81	.15
Great Massingham	Norfolk	17	15	10	17	8	13	15	11	24	15	13	24	182	31.07	.17
Salisbury Plain, Shrewton	Wiltshire	20	17	10	15	10	11	19	12	26	22	16	26	204	33.80	.17
Dorchester, Wollaston House	Dorsetshire	16	15	11	15	8	6	18	12	27	18	16	27	189	38.33	.20
Ashburton, Druid House	South Devon	4	18	12	15	10	8	19	11	28	23	16	27	205	54.70	.27
Martinhoe Rectory	North Devon	1	17	10	11	10	11	17	15	29	21	18	29	207	54.76	.26
Morwenstow Vicarage	Cornwall	13	21	9	13	10	13	20	20	30	30	20	30	229	44.79	.20
St. Austell, Trevana	"	20	18	12	15	13	12	19	15	23	23	16	31	217	47.55	.22
Angersleigh, Leigh Court	Somerset	16	15	12	18	9	9	19	13	25	25	13	27	201	33.97	.17
Mickleton, Bank House	Gloucestershire	15	13	12	16	9	11	18	9	25	19	13	24	184	23.64	.13
Clifton, Harley Place	"	17	19	15	16	11	9	20	15	28	24	15	27	216	42.50	.20
Hereford, Holmer Hall	Herefordshire	15	15	12	15	10	9	18	9	23	18	19	23	186	24.31	.13
Shifnal, National School	Shropshire	13	16	10	14	14	12	20	11	26	18	15	21	190	29.26	.15
Mayfield House [Ashbourne]	Staffordshire	4	17	21	10	11	12	18	13	29	19	14	25	199	35.70	.18
Wistow Hall	Leicestershire	5	15	8	17	7	11	17	9	24	19	11	22	176	23.53	.13
Spalding, Pote Hole	Lincolnshire	4	17	9	20	11	10	18	14	25	22	22	26	214	26.46	.12
Spilsby, Ashby Road	"	22	12	7	20	8	10	14	8	23	14	16	23	177	24.33	.14
Worksop, Hodsock Priory	Nottinghamshire	4	15	11	16	9	9	18	9	26	17	13	20	179	23.07	.13
Northwich, Winnington	Cheshire	5	16	18	9	13	10	12	14	30	19	12	24	194	33.61	.17
St. Michael's-on-Wyre Vicarage	North Lancashire	2	19	18	10	11	12	16	16	29	20	16	27	206	45.44	.22
Settle, Gas Works	Yorkshire, W.R.	5	21	22	13	11	13	15	17	20	20	15	28	223	54.12	.24
Meltham, Harewood Lodge	"	2	20	16	14	12	15	16	17	29	20	17	26	223	53.75	.24
Hull, Pearson Park	"	8	17	13	20	10	9	18	12	26	17	11	23	193	24.00	.12
Felixkirk, Mount St. John	"	3	16	14	16	11	11	19	14	27	18	15	22	198	29.34	.15

Yorkshire, N.R.	5	15	12	13	14	10	9	17	13	23	18	11	17	172	23·17	·13
Durham	2	17	10	18	18	11	7	20	15	23	20	9	20	188	24·63	·13
Northumberland ...	6	20	16	13	16	13	10	21	14	25	22	11	19	200	28·61	·14
Westmorland	1	17	20	12	9	13	10	19	15	25	22	15	24	201	43·47	·22
„	2	23	25	11	11	13	15	19	21	27	26	16	30	237	128·66	·54
Glamorgan	6	21	23	12	13	11	16	21	20	30	26	18	30	241	99·91	·41
Carmarthen	2	21	22	12	17	11	12	20	20	29	29	20	20	243	54·88	·23
Pembroke	4	19	25	15	15	10	9	17	16	25	29	20	28	228	57·08	·27
Cardigan	2	16	21	8	9	11	12	17	16	29	21	17	26	203	55·79	·30
Aberystwyth, Gogerddan	1	21	21	9	14	10	12	17	14	29	23	15	28	213	63·49	·32
Birmingham W.W., Tydmynydd	5	17	19	9	13	12	12	18	13	30	19	16	31	209	66·60	·19
Lake Vyrnwy, Bank Cynon Isaf	2	19	17	7	10	12	14	18	13	29	19	13	21	192	35·83	·26
Denbigh, Garn	4	20	21	10	10	11	12	15	14	27	21	13	26	200	52·19	·19
Abersoch	23	25	11	13	14	13	17	19	28	26	17	29	235	44·63	·20	
Llanerchymedd, Llwydiarth Esgob	18	17	12	15	15	10	11	18	13	26	20	15	25	200	39·86	·24
English & Wales	23	20	11	12	16	14	19	16	26	23	16	28	224	53·68	·21	
ISLE OF MAN.																·23
Douglas, Clype Res., Onchan...																·23
SCOTLAND.																·23
Whithorn, Cutroach	4	21	23	8	6	10	13	13	17	21	19	14	27	192	41·13	·12
Jardington [Dumfries]	5	22	27	11	6	13	14	17	17	25	21	17	22	212	43·91	·18
Canonbie, Irvine House	5	19	25	10	7	14	11	19	19	24	23	14	21	206	48·26	·20
Swinton House	3	18	18	11	12	12	10	18	18	24	25	13	17	196	23·60	·12
Balerno, Cockburn Hill	5	16	23	9	11	13	8	17	17	19	18	14	21	186	33·91	·18
Strathaven, East Overton Ho...	5	21	27	12	8	15	13	14	23	21	25	19	23	221	43·58	·20
Girvan, Pinnore	8	25	26	11	9	17	15	18	20	25	26	18	28	238	53·36	·22
Stirling, Touch Reservoir, No. 1	1	19	27	16	11	16	12	21	23	20	24	17	24	230	53·20	·23
Rothsay, Ardencraig	1	24	27	14	10	19	19	22	26	24	27	26	31	269	60·06	·22
Kilmelfort, Arduaine	7	20	25	14	8	13	18	18	23	22	26	21	29	237	62·66	·26
Campbeltown, South Park	10	23	25	13	7	20	13	18	24	26	28	19	27	243	63·53	·26
Islay, Eallabus	14	27	25	11	11	16	21	20	27	24	27	19	31	259	56·52	·22
Mull, Ulva	14	29	26	16	9	19	20	20	25	26	29	22	30	271	69·38	·26
St. Andrews, Water Works ...	3	12	22	13	11	12	9	13	16	17	19	14	19	177	24·92	·14
Aberfeldy, Dall Avon	11	19	27	12	10	15	12	20	21	20	22	16	23	217	35·97	·17
Blaigowrie, Kinloch Manse ...	15	17	22	13	11	15	9	17	14	21	23	17	23	202	30·02	·15
Logie Coldstone School	1	19	17	17	8	13	13	20	17	20	20	9	16	189	27·27	·14
New Deer Schoolhouse	4	22	18	18	14	14	18	22	23	26	23	11	21	230	32·98	·14
Gordon Castle	2	20	14	14	12	13	15	20	21	27	20	13	21	210	30·28	·14
Muckerach Lodge [Grantown]	3	22	18	11	12	11	15	20	20	26	23	12	20	210	29·30	·14
Drumnadrochit	9	24	25	9	11	17	18	18	20	25	22	15	23	227	39·28	·17
Loch Nevis, Inverie	12	24	25	17	11	16	22	23	27	25	26	21	28	265	96·78	·37

TABLE I.—*Number of Rain Days in 1918—(continued).*

STATION.	COUNTY.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sep.	Oct.	Nov.	Dec.	Total.	Total Rain-fall.	Amount per Rain Day
SCOTLAND—(con.)																
Glenleven, Kinlochmore	Inverness	17	21	17	9	18	18	22	24	26	26	19	27	254	101·97	in. .40
Skye, Portree	"	18	26	27	12	21	21	21	26	24	27	18	30	270	64·60	·24
Achnasheen, Ledgowan	Ross	4	26	25	14	11	15	19	24	26	24	18	25	248	82·19	·33
Dornoch, St. Gilberts	Sutherland	2	18	17	9	7	9	16	20	21	16	10	21	181	29·21	·16
Loch More, Achfary	"	5	26	21	16	11	17	24	26	26	26	20	27	259	77·82	·30
Thurso, Buckies	Caithness	3	24	18	14	12	16	19	24	21	27	19	22	240	44·60	·19
Scotland	(Mean of 28 stations) ..	22	23	13	10	15	16	19	21	23	23	17	24	226	49·98	·22
IRELAND.																
Castletownshend, Seafeld	Cork	6	24	14	12	14	6	16	14	25	21	19	31	220	48·65	·20
Mallow, Summer Hill	"	9	23	15	13	11	12	18	18	27	23	19	29	234	47·44	·20
Kenmare, Derreen	Kerry	4	25	26	14	12	13	21	23	28	25	18	30	247	83·82	·34
Waterford, Brook Lodge	Waterford	3	17	23	15	10	12	10	19	13	25	15	22	201	43·39	·22
Nenagh, Castle Lough	Tipperary	1	21	24	12	8	12	15	22	23	21	16	25	221	50·31	·23
Cahir, Suirvale	"	3	23	23	16	11	13	11	19	18	24	17	26	219	38·31	·17
Killadysert, Paradise Hill	Clare	3	16	24	10	9	11	15	20	29	17	17	31	210	51·36	·24
Gorey, Courtown House	Wexford	4	17	23	14	12	14	11	18	12	23	19	14	199	42·07	·21
Abbey Leix, Blandsfort	Queen's County ..	2	19	23	13	10	14	16	20	16	24	20	17	216	39·01	·18
Straffan House	Kildare	2	16	23	11	10	11	13	19	16	26	19	23	199	33·70	·17
Kells, Headfort	Meath	4	18	24	9	9	15	16	19	12	26	20	27	218	40·74	·19
Moate, Coolatore	Westmeath	1	16	24	14	10	14	13	21	19	26	24	29	230	38·16	·17
Ballynahinch Castle	Galway	3	26	26	17	14	18	15	23	28	26	20	30	271	66·04	·24
Headfort, Ower House	"	3	24	23	14	9	11	12	20	24	25	18	26	228	51·45	·23
Strokestown, Castlenode	Roscommon	4	16	21	9	8	12	11	16	13	22	15	25	186	35·45	·19
Crossmolina, Enniscroe	Mayo	2	27	26	12	11	20	14	22	24	26	19	30	257	59·92	·23
Collooney, Markree Observatory	Sligo	2	26	26	11	10	16	18	22	27	26	20	29	253	49·57	·20
Belturbet, Cloverhill	Cavan	1	19	25	12	9	14	14	17	18	26	20	26	222	36·76	·17
Seaford	Down	2	21	23	10	9	14	12	15	27	25	17	25	215	42·82	·20
Ballymena, Harryville	Antrim	5	25	24	10	10	18	17	22	26	27	21	29	247	47·63	·19
Londonderry, Dunruadh	Londonderry	1	26	27	11	12	18	16	25	26	28	18	30	257	43·25	·17
Omagh, Edenfel	Tyrone	3	24	26	11	9	15	19	24	27	25	19	25	239	43·69	·18
Killybegs, Rockmount	Donegal	5	21	25	11	8	16	18	23	27	26	20	30	241	64·35	·27
Ireland	(Mean of 23 stations) ..	21	24	12	10	14	14	19	19	26	23	18	27	227	47·73	·21
BRITISH ISLES	(" 100 ") ..	20	20	12	12	13	13	19	17	25	22	16	25	214	44·64	·21

some stations in Wales and Cornwall it rained on every day in September, a remarkable circumstance for a month which is rarely one of persistent rainfall in the British Isles. December, too, was notable for frequent rain, giving a general value of 25 days for the whole country and of 27 days for Ireland.

DROUGHTS IN 1918.

THE definitions adopted cover two kinds of drought and are as follows :—

THE ABSOLUTE DROUGHT is a period of *more than* 14 consecutive days, no one of which is a rain day.

THE PARTIAL DROUGHT is a period of *more than* 28 consecutive days, the mean rainfall of which does not exceed .01 in. per day.

All periods in 1918 at any one of the 100 selected stations, which come under either of these definitions are set out in full in the tables on pp. [15] and [16]. In the case of partial droughts the amount of rain which fell is stated also. The names of stations at which no drought of either class occurred during 1918 are omitted from the lists in order to save space ; the full list is given in the table of rain days on pp. [10] to [12].

The year 1918 was unusually free from droughts, and no less than 83 of the 100 stations recorded no absolute drought and 87 no partial drought. These figures represent approximately the percentage of the area of the British Isles unaffected by absolute and partial drought, respectively. Only three stations recorded more than one absolute drought, and only one, Spilsby, in Lincolnshire, recorded more than one partial drought. Only two years, since comparable records first became available in 1887 showed a larger area of the country with no absolute drought, and only 4 a larger area without partial drought, 1902 being the only year in which the area with no drought of either class was larger than in 1918.

The geographical distribution of absolute droughts during the year was irregular, the instances being for the most part in the south of England. The area with partial droughts was, however, very clearly defined, occupying, apart from a small part of the Midlands, a narrow strip stretching along the greater part of the east coast of Great Britain and extending also to part of the south coast. We give a sketch map showing the limits of this strip on p. [17].

Comparative Summary of Droughts, 1887—1918.

	ABSOLUTE DROUGHTS.				PARTIAL DROUGHTS.			
	No. of Droughts at 100 Stations	Duration.		Stations without one.	No. of Droughts at 100 Stations	Duration.		Stations without one.
		Mean.	Greatest.			Mean.	Greatest.	
		days.	days.			days.	days.	
1887	160	21	34	4	116	40	74	18
1888	34	17	20	70	8	42	50	92
1889	84	21	30	26	76	34	45	30
1890	26	18	20	78	6	30	31	94
1891	52	18	34	56	76	36	49	28
1892	72	16	20	50	34	35	64	66
1893	78	20	44	46	106	51	114	20
1894	104	18	31	20	88	37	62	26
1895	104	19	29	32	94	39	64	38
1896	54	18	26	50	98	40	75	32
1897	40	18	20	62	14	40	61	88
1898	62	17	28	54	62	38	77	52
1899	120	21	31	20	82	35	48	40
1900	28	17	21	76	18	32	35	82
1901	112	17	20	20	18	37	56	84
1902	10	17	18	90	4	37	41	96
1903	22	19	25	79	33	34	41	71
1904	12	16	18	88	18	34	41	82
1905	26	17	20	74	59	36	48	60
1906	73	17	25	47	40	36	55	62
1907	56	19	25	51	30	32	41	71
1908	74	18	32	48	52	35	54	68
1909	47	17	23	66	18	37	51	84
1910	32	16	24	70	23	33	42	78
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
Average	67	18	27	49	53	36	56	58
1918	20	16	18	83	14	34	47	87
Diff.	-47	-2	-9	+34	-39	-2	-9	+29

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

Turning to individual droughts these were all extremely local. In central Scotland one station recorded an absolute drought, and one a partial drought, in mid-winter of 1917-18, but, apart from this the earliest dry period occurred in February and March and gave rise to a partial drought at some stations in the east, and part of the south Midlands of England. Its greatest length was 46 days at Newport Pagnell

Between May 23rd and August 24th absolute droughts occurred, principally in the south of England, in three periods, from May 23rd to June 8th on the south coast, from June 24th to July 8th round the Bristol Channel, extending to part of the south of Ireland, and from August 6th to 24th again chiefly on the south coast of England. In Hampshire and Dorset a partial drought extended from mid-May to mid-June and at some east coast stations this drought commenced rather later and extended throughout June and well into July. There was one isolated instance in Leicestershire of an absolute drought in November.

Speaking generally such droughts as occurred in 1918 were few and short; they were irregular as to date, and were very largely confined to the south and east coasts of England.

Droughts in 1918.

STATION & COUNTY.	ABSOLUTE DROUGHTS.			PARTIAL DROUGHTS.			
	Began.	Ended.	Last- ed.	Began.	Ended.	Last- ed.	Rain.
ENGLAND and WALES.			Days			Days	in.
Brighton W.W. (Shoreham)	May 23	June 6	15	None.			
<i>Sussex—3.</i>	Aug. 8	Aug. 22	15				
Sandown (Free Library)	May 23	June 8	17	May 13	June 13	32	·30
<i>Hants—1.</i>	Aug. 8	Aug. 23	16				
Upton	None			Feb. 25	Mar. 27	31	·22
<i>Berkshire—5.</i>							
Newport Pagnell (The Croft) ...	None			Feb. 10	Mar. 27	46	·44
<i>Buckinghamshire—5.</i>							
Southend (Water Works).....	May 25	June 8	15	None			
<i>Essex—3.</i>							
Lexden (Hill House)	Aug. 6	Aug. 22	17	Feb. 25	Mar. 27	31	·31
<i>Essex—5.</i>							
Burgh Hall [Yarmouth]	None			May 14	June 17	35	·33
<i>Suffolk—4.</i>							
Great Massingham	Aug. 8	Aug. 24	17	None			
<i>Norfolk—1.</i>							
Dorchester (Wollaston House) ..	May 24	June 8	16	May 13	June 14	33	·31
<i>Dorsetshire—3.</i>							
Ashburton (Druid House)	June 22	July 7	16	None			
<i>South Devon—4.</i>	Aug. 7	Aug. 21	15				
Martinhoe Rectory	June 24	July 8	15	None			
<i>North Devon—1.</i>							
Clifton (Harley Place)	June 24	July 8	15	None			
<i>Gloucestershire—5.</i>							
Hereford (Holmer Hall)	Aug. 6	Aug. 23	18	Feb. 10	Mar. 11	30	·28
<i>Herefordshire—1.</i>							
Wistow Hall	Nov. 8	Nov. 22	15	None			
<i>Leicestershire—4.</i>							
Spilsby (Ashby Road)	Aug. 7	Aug. 24	18	Mar. 1	Mar. 29	29	·25
<i>Lincolnshire—4.</i>				May 25	June 24	31	·27

Droughts in 1918—(continued).

STATION & COUNTY.	ABSOLUTE DROUGHTS.			PARTIAL DROUGHTS.			
	Began.	Ended.	Last- ed.	Began.	Ended	Last- ed.	Rain
ENGLAND and WALES—(con.)			Days			Days	in.
Hull (Pearson Park)	None			May 24	July 7	45	·40
<i>Yorkshire, East Riding—3.</i>							
Sunderland (West Hendon Ho.)	None			June 7	July 6	30	·24
<i>Durham—2.</i>							
SCOTLAND.							
Swinton House, <i>Berwick—3.</i> . . .	None			May 25	July 10	47	·45
Balerno, (Cockburn Hill)	Mar. 11	Mar. 26	16	None			
<i>Midlothian—5.</i>							
Stirling (Touch Reservoir No. 1)	Dec. 21	Jan. 5	16	None			
<i>Stirling—1.</i>	1917						
Blairgowrie (Kinloch Manse)	None			Dec. 21	Jan. 18	29	·27
<i>Perth—15.</i>				1917			
Logie Coldstone School	None			Nov. 9	Dec. 10	32	·17
<i>Aberdeen—1.</i>							
IRELAND							
Castletownshend (Seafield)	June 21	July 6	16	None			
<i>Cork—6.</i>							
Killadysert (Paradise Hill)	June 22	July 6	15	None			
<i>Clare—3.</i>							
Gorey (Courtown House)	June 21	July 6	16	None			
<i>Wexford—4.</i>							

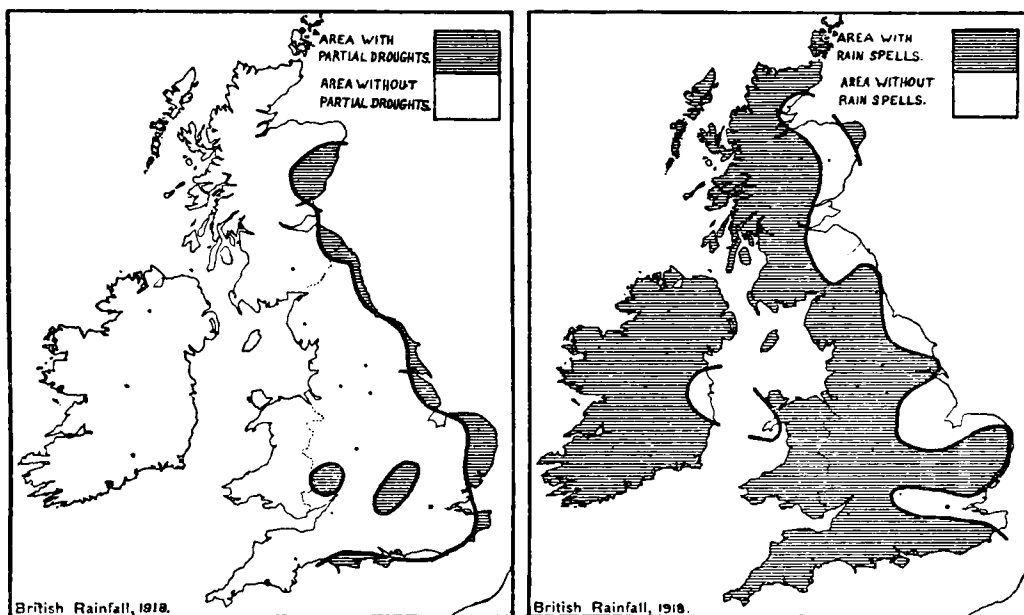
RAIN SPELLS IN 1918.

THE definition of a Rain Spell adopted in 1903 is :—

A RAIN SPELL is a period of *more than* 14 consecutive days every one of which is a rain day.

The particulars of all periods satisfying the definition are set out in full on pp. [19] to [23], the names of stations at which no rain spell occurred being omitted as in the case of the drought tables. The number of rain spells observed and the area affected were larger than the average for the past 16 years, but they have both frequently been exceeded in that period. In all 186 rain spells were found to have occurred at 79 out of the 100 stations. At 72 stations, that is over about three-quarters of the area of the British Isles, the number of spells during the year did not exceed two ; 19 stations, or about one-fifth of the country, had three or four, and 9 stations, all in the rainy districts of the west, recorded five or six. The area with no rain spells lay almost entirely along the east coast of

Great Britain, and the sketch map showing its limits, which is reproduced below, is thus nearly complementary to that showing the limit of partial droughts. In parts of the south-west of England and Wales and along the whole of the west coasts of Ireland and Scotland more than 60 days during the year were included in rain spells, still narrower strips in all these districts having more than 100 days affected.



Area with Partial Droughts.

Area with Rain Spells.

Compared with the average of 16 years the mean duration of rain spells and the mean rainfall per day were high, both being the largest amounts recorded in that period, though, owing to the limiting minimum length it is difficult to say whether this fact has any significance. The longest spell recorded during the year was of 56 days duration, from August 29th to October 23rd, inclusive, at Morwenstowe, Cornwall.

At a few stations in the south-west of England and Wales a short rain spell was recorded in mid-January and over part of Ireland this spell extended well into February. In the north of Ireland and part of the western isles of Scotland the latter part of February was also affected, this period coinciding with the early part of the spring partial drought of the south Midlands of England. The spring and early summer were free from prolonged rainy weather but between July 9th and 27th a rain spell occurred in the south of England and Wales and part of central Ireland. The amount of rain per day was high, reaching .40 in. at Shrewton, on

Salisbury Plain, and $\cdot 45$ in. at Treherbert. The last three weeks of August, the greater part of which was very dry in the southern counties of England, gave a rain spell in the west Highlands, which proved the forerunner of the most widespread and continuous rainy period of the year, in September.

The districts which failed to record the great rain spell of September were the east of Great Britain and east Central Ireland. Two stations which escaped it in Cornwall and Cork suggest a southern limit. Along the west coast and in the north of Ireland, as well as round the mouth of the Bristol Channel, the duration of this rain spell exceeded 40 days, lasting to the middle of October, and at Morwenstowe, in north Cornwall, it extended to the remarkable duration of 56 days ending on October 23rd. In Scotland also the date of termination was later than in England generally, but in most places in the north the spell did not commence till about 10 days later than elsewhere. The mean rate of rainfall per day was rather high, the general value being $\cdot 32$ in. for the district affected ; it was especially so in the west of Great Britain where it exceeded $\cdot 50$ in. at four stations and reached the unusual figure of 1.00 in. at Dungeon Ghyll, $34\cdot 95$ in. of rain falling in the 35 days September 7th to October 11th, inclusive, at this wet Lake District station.

In South Wales and over the north-west coast strips from Galway Bay to Stour Head a short rain spell occurred from about October 26th to November 11th ; and about a fortnight later, but with a considerable range of date, the second widespread rain spell of the year commenced. This spell occupied roughly the first three weeks of December, but in some cases started as early as November 22nd. The area affected was principally the south-west of England and Wales, the whole of the west and north of Ireland and most of the west coast of Scotland. The greatest length reached was at Rothesay, where it lasted 41 days, from November 21st to December 31st, and at many places we believe it continued far into 1919. The mean rate of rainfall per day was lower than in the great rain spell of September, being $\cdot 26$ in. for the area as a whole. Where the rain spell extended to the east some very low values were observed, *e.g.*, $\cdot 06$ in. per day at Blairgowrie, but the mean reached $\cdot 63$ in. at Dungeon Ghyll, and $\cdot 61$ in. at Treherbert.

The instances of rain spells with a mean rate of rainfall reaching or exceeding $\cdot 40$ in. during the year were 30, the largest number observed since 1903 except in 1916 when there were 38. No fewer than five such

spells occurred at Treherbert in Glamorgan. It is interesting to note that the mean rainfall per day of 1·00 in. at Dungeon Ghyll, during the September rain spell was the highest value recorded in these tables during the last sixteen years with the single exception of the spell of November 23rd to December 9th, 1914, when a mean of 1·05 in. per day was recorded at Kinlochmore, in West Inverness-shire.

Table of Rain Spells, 1918.

STATION & COUNTY.	Began.	Ended.	Last- ed.	Total Rain.	RAIN PER DAY.		
					Max.	Min.	Mean
ENGLAND & WALES.			Days	in.	in.	in.	in.
Tenterden (View Tower). <i>Kent</i> —1.	Dec. 17	Dec. 31	15	1·18	·32	·01	·08
Brighton W.W. (Shoreham)	July 9	July 24	16	2·85	·53	·01	·18
<i>Sussex</i> —3.							
Sandown (Free Library),	Jan. 9	Jan. 23	15	3·66	1·35	·01	·24
<i>Hants</i> —1.	Nov. 23	Dec. 15	23	2·92	·66	·01	·13
Petersfield (Ditcham Park)	July 9	July 27	19	5·87	·81	·02	·31
<i>Hants</i> —5.	Nov. 30	Dec. 15	16	2·55	·75	·01	·16
Newport Pagnell (The Croft)	Sept. 3	Sept. 24	22	3·42	·57	·01	·16
<i>Buckinghamshire</i> —5.							
Cambridge (Cherryinton)	Sept. 3	Sept. 18	16	3·82	·87	·01	·24
<i>Cambridge</i> —2.							
Southend Water Works, <i>Essex</i> —3.	July 8	July 27	20	4·35	·60	·01	·22
Lexden (Hill House)	July 10	July 27	18	4·61	·83	·01	·26
<i>Essex</i> —5.	Nov. 24	Dec. 15	22	1·73	·28	·01	·08
Burgh Hall [Yarmouth], <i>Suffolk</i> —4	Dec. 5	Dec. 22	18	2·22	·44	·02	·12
Salisbury Plain (Shewton)	Jan. 10	Jan. 24	15	3·98	1·36	·01	·27
<i>Wiltshire</i> —3.	July 9	July 27	19	7·67	1·70	·01	·40
	Sept. 3	Sept. 22	20	3·57	·56	·01	·18
	Nov. 30	Dec. 19	20	2·40	·44	·01	·12
Dorchester (Wollaston House)	July 9	July 23	15	4·39	·85	·01	·29
<i>Dorsetshire</i> —3.	Sept. 3	Sept. 24	22	6·82	·98	·02	·31
	Nov. 22	Dec. 24	33	4·24	·70	·01	·13
Ashburton (Druid House)	July 8	July 26	19	5·33	·75	·04	·28
<i>South Devon</i> —4.	Sept. 7	Sept. 24	18	7·46	1·22	·04	·41
Martinhoe Rectory	Sept. 3	Sept. 30	28	12·21	1·41	·01	·44
<i>North Devon</i> —1.	Dec. 2	Dec. 19	18	5·84	·81	·01	·32
Morwenstowe Vicarage	July 8	July 27	20	4·81	·88	·01	·24
<i>Cornwall</i> —1.	Aug. 29	Oct. 23	56	12·01	1·13	·01	·21
	Nov. 22	Dec. 19	28	6·02	·63	·02	·22
St. Austell (Trevarna)	July 9	July 26	18	5·04	1·22	·02	·28
<i>Cornwall</i> —2.	Nov. 23	Dec. 31	39	9·36	·94	·01	·24
Angersleigh (Leigh Court)	July 9	July 27	19	4·46	·74	·03	·23
<i>Somerset</i> —3.	Oct. 2	Oct. 16	15	1·43	·21	·02	·10
	Dec. 2	Dec. 19	18	2·67	·59	·02	·15
Mickleton (Bank House)	July 9	July 23	15	2·11	·70	·01	·14
<i>Gloucestershire</i> —4.	Sept. 3	Sept. 18	16	3·06	·96	·01	·19
Clifton (Harley Place)	July 9	July 28	20	5·86	1·07	·01	·29
<i>Gloucestershire</i> —5.	Sept. 7	Oct. 11	35	11·25	2·09	·01	·32
Hereford (Holmer Hall)	July 9	July 26	18	2·26	·39	·01	·13
<i>Herefordshire</i> —1.	Sept. 3	Sept. 18	16	5·52	1·04	·01	·35

Table of Rain Spells, 1918—(continued).

STATION & COUNTY.	Began.	Ended.	Last- ed.	Total Rain.	RAIN PER DAY.		
					Max.	Min.	Mean
ENGLAND & WALES—(con.)			Days	in.	in.	in.	in.
Shifnal (National School)	July 8	July 27	20	3·97	·56	·01	·20
<i>Shropshire—4.</i>	Sept. 3	Sept. 24	22	4·38	·84	·01	·20
Mayfield House [Ashbourne]	Aug. 30	Sept. 18	20	6·95	1·28	·02	·35
<i>Staffordshire—5.</i>	Sept. 20	Oct. 10	21	2·78	·53	·01	·13
Northwich (Winnington)	Aug. 30	Oct. 1	33	7·06	·91	·01	·21
<i>Cheshire—2.</i>							
St. Michaels-on-Wyre Vicarage ..	Sept. 7	Oct. 10	34	10·91	·97	·01	·32
<i>North Lancashire—5.</i>							
Settle (Gas Wks.) <i>Yorks. W. R.—2.</i>	Sept. 6	Oct. 10	35	13·71	1·03	·01	·39
Meltham (Harewood Lodge)	Jan. 6	Jan. 23	18	4·19	1·04	·02	·23
<i>Yorkshire, W. Riding—8.</i>	Aug. 30	Sept. 29	31	14·22	2·02	·03	·46
Hull (Pearson Park)	April 5	Apr. 20	16	1·30	·36	·01	·08
<i>Yorkshire, E. Riding —3.</i>	Sept. 7	Sept. 22	16	2·82	·70	·01	·18
Glanton (Glanton Pyke Gardens)..	Sept. 29	Oct. 14	16	1·76	·33	·02	·11
<i>Northumberland—6.</i>							
Appleby (Cas. Bank) <i>Westmorland—1</i>	Sept. 6	Sept. 28	23	8·22	1·75	·01	·36
Dungeon Ghyll	Sept. 7	Oct. 11	35	34·95	3·60	·01	1·00
<i>Westmorland—2.</i>	Nov. 30	Dec. 24	25	15·73	3·60	·02	·63
Treherbert (Tyn-y-waun)	Jan. 8	Jan. 24	17	8·49	1·91	·06	·50
<i>Glamorgan—6.</i>	July 7	July 27	21	9·43	1·47	·01	·45
	Aug. 30	Oct. 11	43	23·93	1·85	·01	·56
	Oct. 24	Nov. 11	19	7·77	2·68	·01	·41
	Nov. 30	Dec. 24	25	15·37	1·91	·01	·61
Carmarthen (The Friary)	Jan. 6	Jan. 24	19	5·35	·73	·01	·28
<i>Carmarthen—2.</i>	July 8	July 27	20	5·80	1·10	·01	·29
	Sept. 3	Oct. 19	47	14·36	1·39	·01	·31
	Oct. 24	Nov. 12	20	3·68	1·06	·01	·18
	Nov. 23	Dec. 19	27	8·61	1·04	·02	·32
Fishguard (Langton, Dwrbach) ..	Sept. 7	Sept. 22	16	6·80	1·08	·01	·43
<i>Pembroke—4.</i>	Sept. 29	Oct. 22	24	6·99	1·45	·01	·29
	Dec. 2	Dec. 18	17	6·57	1·08	·02	·39
Aberystwyth (Gogerddan)	Aug. 30	Sept. 18	20	7·26	1·21	·03	·36
<i>Cardigan—2.</i>	Sept. 20	Oct. 10	21	6·88	1·18	·02	·33
Birmingham W.W. (Tyrmynydd)..	Jan. 8	Jan. 24	17	5·98	1·14	·02	·35
<i>Radnor—1.</i>	Aug. 30	Sept. 29	31	11·82	1·03	·04	·38
	Dec. 4	Dec. 19	16	6·07	1·17	·02	·38
Lake Vyrnwy (Bank Cynon Isaf)..	Aug. 30	Oct. 11	43	18·40	1·60	·02	·43
<i>Montgomery—5.</i>	Nov. 23	Dec. 31	39	11·77	1·20	·01	·30
Denbigh (Garn) <i>Denbigh—2.</i>	Sept. 8	Oct. 1	24	5·17	·78	·01	·22
Llanerchymedd (Llwydiarth Esgob). <i>Anglesey.</i>	Sept. 7	Oct. 11	35	10·54	2·66	·01	·30
ISLE OF MAN.							
Douglas (Clypse Reservoir)	Sept. 19	Oct. 10	22	6·10	·87	·02	·28
SCOTLAND.							
Jardington [Dumfries]	Sept. 13	Oct. 10	28	9·52	1·50	·03	·34
<i>Kirkcudbright—5.</i>							
Strathaven (East Overton House)	Feb. 4	Feb. 28	25	6·56	1·40	·01	·26
<i>Lanark—5.</i>							

Table of Rain Spells, 1918—(continued).

STATION & COUNTY.	Began.	Ended.	Last- ed.	Total Rain.	RAIN PER DAY.		
					Max.	Min.	Mean
SCOTLAND—(con.)			Days	in.	in.	in.	in
Girvan (Pinmore)	Sept. 7	Oct. 11	35	10·69	1·36	·01	·31
<i>Ayr</i> —8.	Oct. 26	Nov. 10	16	5·77	1·20	·01	·36
Stirling (Touch Reservoir No. 1) ..	Oct. 26	Nov. 10	16	5·13	1·50	·02	·32
<i>Stirling</i> —1.							
Rothesay (Ardencraig)	July 5	July 26	22	4·15	·81	·02	·19
<i>Bute</i> —1.	Aug. 11	Aug. 27	17	3·39	·61	·01	·20
	Sep. 15	Oct. 11	27	9·92	·96	·03	·37
	Oct. 26	Nov. 11	17	6·13	1·95	·02	·36
	Nov. 21	Dec. 31	41	10·02	1·22	·01	·24
Kilmelfort (Arduaine)	Sep. 19	Oct. 11	23	8·11	1·15	·02	·35
<i>Argyll</i> —7	Oct. 26	Nov. 10	16	7·01	1·20	·02	·44
	Nov. 30	Dec. 21	22	6·41	·73	·02	·29
Campbeltown (South Park)	Jan. 14	Jan. 28	15	4·14	1·03	·03	·28
<i>Argyll</i> —10.	Aug. 16	Sept. 3	19	2·10	·39	·01	·11
	Sep. 19	Oct. 11	23	9·35	·99	·01	·41
	Nov. 22	Dec. 12	21	4·80	·46	·01	·23
Islay (Eallabus)	Aug. 11	Sept. 2	23	3·81	·65	·01	·17
<i>Argyll</i> —14.	Sep. 15	Oct. 16	32	9·48	·77	·01	·30
	Oct. 26	Nov. 11	17	6·08	1·16	·02	·36
	Nov. 30	Dec. 31	32	8·02	·73	·01	·25
Mull (Ulva)	Jan. 19	Feb. 12	25	5·65	·75	·01	·23
<i>Argyll</i> —14.	Aug. 11	Sept. 1	22	5·71	·78	·01	·26
	Sep. 15	Oct. 17	33	11·36	1·27	·02	·34
	Oct. 21	Nov. 10	21	10·01	2·69	·01	·48
	Nov. 22	Dec. 24	33	8·96	·91	·01	·27
Aberfeldy (Dall Avon) <i>Perth</i> —11.	Feb. 1	Feb. 22	22	3·99	·76	·01	·18
Blairgowrie (Kinloch Manse)	Dec. 2	Dec. 17	16	1·03	·19	·01	·06
<i>Perth</i> —15.							
New Deer (Schoolhouse)	July 7	July 24	18	6·03	1·58	·04	·34
<i>Aberdeen</i> —4.	Sep. 19	Oct. 6	18	1·75	·30	·01	·10
Muckerach Lodge [Grantown]	Sep. 19	Oct. 9	21	2·69	·64	·02	·13
<i>Inverness</i> —3.							
Drumnadrochit <i>Inverness</i> —9.	Sep. 15	Oct. 13	29	6·56	·94	·02	·23
Loch Nevis (Inverie Gardens)	Aug. 11	Sept. 3	24	8·81	1·05	·02	·37
<i>Inverness</i> —12.	Sep. 30	Oct. 17	18	9·89	1·57	·03	·55
	Oct. 26	Nov. 10	16	9·17	1·90	·03	·57
	Nov. 30	Dec. 18	19	7·81	·84	·02	·41
Glenleven (Kinlochmore Gardens)	Feb. 14	Feb. 28	15	9·49	1·64	·01	·63
<i>Inverness</i> —17.	July 9	July 26	18	4·78	·92	·03	·27
	Aug. 11	Sept. 3	24	8·69	1·17	·03	·36
	Sep. 15	Oct. 11	27	20·40	2·18	·02	·76
	Oct. 26	Nov. 10	16	12·26	2·25	·02	·77
	Nov. 30	Dec. 18	19	7·46	·74	·06	·39
Skye (Portree)	Feb. 14	Feb. 28	15	4·83	·60	·04	·32
<i>Inverness</i> —18.	Aug. 11	Sept. 3	24	6·47	·85	·03	·27
	Sep. 21	Oct. 11	21	8·22	1·00	·01	·39
	Nov. 30	Dec. 24	25	5·35	·49	·02	·21
Achnasheen (Ledgowan)	Feb. 14	Feb. 28	15	7·78	1·40	·01	·52
<i>Ross</i> —4.	July 9	July 24	16	5·76	1·12	·01	·36
	Sep. 15	Oct. 10	26	12·47	1·46	·06	·48

Table of Rain Spells, 1918—(continued).

STATION & COUNTY.	Began.	Ended.	Last- ed.	Total Rain.	RAIN PER DAY.		
					Max.	Min.	Mean
SCOTLAND—(con.)			Days	in.	in.	in.	in.
Loch More (Achfary)	Jan. 3	Jan. 17	15	4.21	.54	.05	.28
<i>Sutherland—5.</i>	June 6	June 27	22	6.32	1.10	.05	.29
	Aug. 11	Aug. 25	15	6.36	1.39	.05	.42
	Sep. 19	Oct. 17	29	11.65	1.06	.02	.40
	Oct. 28	Nov. 11	15	4.24	.91	.02	.28
Thurso (Buckies).....	Dec. 31	Jan. 14	15	5.84	.93	.01	.39
<i>Caithness—3.</i>	(1917)						
	July 3	July 24	22	6.18	.79	.01	.28
	Sep. 10	Oct. 2	23	3.66	.46	.03	.16
IRELAND.							
Castletownshend (Seafeld).....	Jan. 13	Feb. 12	31	7.42	.59	.01	.24
<i>Cork—6.</i>	Nov. 22	Dec. 31	40	10.59	.94	.01	.26
Mallow (Summer Hill)	Jan. 13	Feb. 12	31	9.71	1.90	.01	.31
<i>Cork—9.</i>	Sept. 3	Sep. 17	15	4.64	.83	.08	.31
	Sep. 24	Oct. 11	18	2.76	.50	.01	.15
	Dec. 14	Dec. 29	16	3.20	.74	.01	.20
Kenmare (Derreen)	Jan. 13	Feb. 12	31	16.45	1.21	.02	.53
<i>Kerry—4.</i>	Sept. 4	Oct. 12	39	14.86	1.96	.01	.38
	Nov. 23	Dec. 23	31	15.12	1.50	.03	.49
Waterford (Brook Lodge)	Sept. 2	Sep. 17	16	6.43	1.44	.01	.40
<i>Waterford—3.</i>							
Nenagh (Castle Lough)	July 7	July 26	20	4.86	.73	.02	.24
<i>Tipperary—1.</i>	Sept. 7	Sep. 25	19	6.46	1.04	.03	.34
Cahir (Súirvale)	Jan. 13	Feb. 12	31	6.65	1.29	.01	.21
<i>Tipperary—3.</i>							
Killadysert (Paradise Hill)	Jan. 28	Feb. 13	17	2.82	.65	.01	.17
<i>Clare—3.</i>	Sept. 3	Oct. 10	38	13.81	1.03	.01	.36
	Nov. 30	Dec. 31	32	7.66	1.03	.01	.24
Gorey (Courtown House)	Mar. 27	Apr. 10	15	3.02	.43	.01	.20
<i>Wexford—4.</i>	Sept. 3	Sep. 17	15	6.41	1.41	.02	.43
Abbey Leix (Blandsfort)	Sep. 19	Oct. 11	23	4.72	.74	.02	.21
<i>Queens County—2.</i>							
Kells (Headfort), <i>Meath—4.</i>	July 10	July 26	17	3.89	.67	.01	.23
Moate (Coolatore)	July 7	July 26	20	4.43	.89	.01	.22
<i>Westmeath—1.</i>	Sept. 6	Sep. 27	22	5.22	1.05	.01	.24
	Nov. 22	Dec. 19	28	4.78	.58	.01	.17
Ballynahinch Castle	Jan. 16	Feb. 12	28	8.53	.97	.02	.30
<i>Galway—3.</i>	Feb. 15	Mar. 1	15	4.00	1.56	.02	.27
	July 7	July 26	20	4.55	.76	.01	.23
	Sept. 6	Oct. 18	43	13.13	1.60	.01	.31
	Oct. 24	Nov. 10	18	5.59	.92	.02	.31
	Dec. 15	Dec. 31	17	4.56	1.04	.06	.27
Headford (Ower House)	Jan. 17	Feb. 1	16	4.71	1.18	.01	.29
<i>Galway—3.</i>							
Crossmolina (Enniscoe)	Jan. 17	Feb. 12	27	8.39	1.03	.02	.31
<i>Mayo—2.</i>	Sep. 7	Oct. 11	35	13.48	1.19	.03	.39
	Oct. 26	Nov. 10	16	6.06	1.40	.05	.38
	Nov. 22	Dec. 13	22	3.89	.56	.02	.18
	Dec. 15	Dec. 31	17	5.55	.95	.04	.33

Table of Rain Spells, 1918—(continued).

STATION & COUNTY.	Began.	Ended.	Last- ed.	Total Rain.	RAIN PER DAY.		
					Max.	Min.	Mean
IRELAND—(con.)			Days	in.	n.	in.	in.
Collooney (Markree Observatory).. Sligo—2.	Jan. 6	Jan. 29	24	4.50	1.10	.02	.19
	Sept. 6	Oct. 19	44	12.81	1.21	.02	.29
	Dec. 15	Dec. 31	17	4.85	.64	.03	.29
Belturbet (Cloverhill), Cavan—1. . .	Sept. 7	Oct. 10	34	9.24	1.31	.01	.27
Seaforde, Down—2.	Sept. 6	Oct. 13	38	7.79	1.72	.02	.21
Ballymena (Harryville)	Sept. 7	Oct. 19	43	9.87	1.70	.02	.23
Antrim—5.	Oct. 28	Nov. 11	15	4.85	1.79	.03	.32
	Nov. 22	Dec. 13	22	3.05	.39	.02	.14
	Dec. 16	Dec. 31	16	3.44	.71	.03	.22
Londonderry (Dunruadh)	Jan. 6	Jan. 25	20	3.14	.44	.02	.16
Londonderry—1.	Feb. 14	Feb. 28	15	2.62	.57	.01	.17
	Aug. 13	Aug. 27	15	2.20	.48	.01	.15
	Sept. 7	Oct. 19	43	9.75	.81	.02	.23
	Oct. 26	Nov. 10	16	3.41	.91	.01	.21
	Dec. 4	Dec. 31	28	4.97	.82	.01	.18
Omagh (Edenfel)	Sept. 6	Oct. 19	44	11.43	1.10	.02	.26
Tyrone—3.	Oct. 26	Nov. 10	16	4.17	1.15	.03	.26
Killybegs (Rockmount)	Sept. 6	Oct. 19	44	16.90	1.47	.01	.38
Donegal—5.	Dec. 11	Dec. 31	21	7.50	1.40	.01	.36

Comparative Table of Rain Spells at 100 Stations.

Year.	No. of Rain Spells.	DURATION OF SPELLS.				STATIONS WITH			
		Mean.		Greatest.					
		days.	Mean R per day. in.	days.	Mean R per day. in.	None.	1 or 2.	3 or 4.	5 or more.
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
Average	170	21	.27	51	.27	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 figure refer to the selected stations only.

DURATION OF RAINFALL IN 1918.

THE changes in the list of records available are more numerous than usual, several of the new stations introduced last year having failed to send returns. Those the loss of which we regret most are Mullion and Houten Bay, both in the remoter districts from which observations are so difficult to get, but we hope that their loss is only temporary. Of the new stations two are in London, which is now well represented. We particularly welcome the addition of Inchinnan, in Renfrewshire, which, with Luce Bay, adds something to the representation of the west of Scotland, and of Glenedra Lodge, a new station in Co. Londonderry.

Considerable though the improvement in the distribution is, very much still remains to be done to make it represent in any adequate manner the various climatic peculiarities of different parts of the British Isles. One of the questions of great scientific interest which we hope eventually to solve by means of rainfall duration records is that of the relative rate of fall of rains of different types in different parts of the country. Up to the present only broad generalizations on this point can be formulated. There appears some reason to think that on the whole orographical rainfall is nearly always of small intensity, and that such high rates of fall as we are accustomed to associate with thunderstorm rains in the east and

Duration of Rainfall in 1918.

▷ Indicates daily values received. *Charts measured by the British Rainfall Organization
Longside Airship Stn., Aberdeenshire. *Shad Thames Pump. Stat., London.*▷
 AIR MINISTRY. LONDON COUNTY COUNCIL.
 N. and Z's. Hyetograph. 223 ft. above Sea. N. and Z's. Hyetograph. 43 ft. above Sea.

1918.	Rainfall.	Duration.	Rate per hour.	1918.	Rainfall.	Duration.	Rate per hour.
	in.	hours.	in.		in.	hours.	in.
Jan.	3·56	65·2	·055	Jan.	2·58	71·3	·036
Feb.	1·33	27·0	·049	Feb.	·88	34·7	·025
March	2·13	56·5	·038	March	·91	25·0	·036
April.	·67	40·0	·017	April	2·67	77·3	·034
May	1·28	58·0	·022	May	2·92	38·4	·076
June.	2·30	135·0	·017	June	·66	18·0	·037
July	6·17	181·5	·034	July	8·31	57·0	·146
Aug.	2·86	55·5	·052	Aug.	1·47	30·5	·048
Sept.	5·82	136·7	·043	Sept.	4·59	66·2	·069
Oct.	2·19	72·3	·030	Oct.	1·12	44·5	·025
Nov.	2·23	34·6	·064	Nov.	1·79	61·5	·029
Dec.	3·22	95·3	·034	Dec.	1·80	66·5	·027
Year.	33·76	957·6	·035	Year	29·70	590·9	·050

The record for Longside was received just at the moment of going to press and is on that account unavoidably out of its correct order.

South Kensington, London.D*				Hammersmith, London. D			
METEOROLOGICAL OFFICE.				LONDON COUNTY COUNCIL.			
Halliwell Recorder. 70 ft. above sea				N. and Z's. Hyetograph. 35 ft. above Sea.			
1918.	Rainfall.	Duration.	Rate per hour.	1918.	Rainfall.	Duration.	Rate per hour.
	in.	hours.	in.		in.	hours.	in.
Jan.	2.32	34.0	.068	Jan.	2.41	..	..
Feb. ....	.76	12.0	.063	Feb. ....	.74	36.0	.21
March ....	.91	13.5	.067	March	1.07	22.5	.048
April	2.92	72.3	.040	April	2.62	..	..
May	1.61	29.5	.055	May	1.47	32.8	.045
June	1.16	17.9	.065	June ....	.84	19.7	.043
July	6.42	44.5	.145	July	4.83	57.5	.084
Aug.	1.41	15.2	.093	Aug.	1.10	24.8	.044
Sept.	5.31	54.4	.098	Sept.	5.46	70.5	.077
Oct.	1.21	31.5	.038	Oct.	1.22	48.7	.025
Nov.	2.06	58.8	.035	Nov.	1.89	66.3	.029
Dec.	1.82	63.6	.029	Dec.	2.03	(70.7)	.029
Year	27.91	447.2	.062	Year	25.68	..	..

Camden Square, London.D*				Old Ford, Poplar, London.			
BRITISH RAINFALL ORGANIZATION.				LONDON COUNTY COUNCIL.			
Casella's Standard. 111 ft. above Sea				N. and Z's. Hyetograph. 43 ft. above Sea.			
	in.	hours.	in.		in.	hours.	in.
Jan.	2.86	60.6	.047	Jan.	2.86	..	..
Feb.	1.11	25.5	.044	Feb. ....	.98	..	..
March	1.09	16.1	.068	March ....	.85	(23.5)	.036
April	3.24	72.1	.045	April	2.98	..	..
May	2.11	29.0	.073	May	3.08	36.8	.084
June	1.30	18.6	.070	June	1.88	18.2	.103
July	4.74	49.2	.096	July	6.95	53.8	.129
Aug.	1.78	18.5	.096	Aug.	1.67	(32.2)	.052
Sept.	5.68	72.6	.078	Sept.	4.79	68.4	.070
Oct.	1.23	33.9	.036	Oct.	1.12	56.5	.020
Nov.	2.21	63.8	.035	Nov.	1.86	(58.0)	.032
Dec.	2.34	60.3	.039	Dec.	2.17	68.3	.032
Year	29.69	520.2	.057	Year	31.19	..	..

Hill Crest, Dormans Park, Surrey.D*				Edenfield, New Malden, Surrey.			
MRS. H. R. MILL.				W. J. CARTER, ESQ., F.R.Met.Soc.			
N. and Z's Hyetograph. 320 ft. above Sea.				Casella's Recorder. 39 ft. above Sea.			
	in.	hours.	in.		in.	hours.	in.
Jan.	3.66	(70.2)	.052	Jan.	2.91	69.9	.042
Feb.	1.44	42.8	.034	Feb. ....	.91	21.9	.041
March	1.08	23.3	.046	March ....	.84	25.8	.033
April	3.95	74.4	.053	April	3.29	99.8	.033
May	1.45	20.7	.070	May	1.89	35.4	.053
June ....	.94	15.6	.060	June ....	.89	19.4	.046
July	4.76	42.5	.112	July	(6.85)	..	..
Aug.	1.00	23.9	.042	Aug. ....	.99	24.0	.041
Sept.	6.43	69.8	.092	Sept.	4.96	74.7	.066
Oct.	1.76	56.7	.031	Oct.	1.29	57.7	.022
Nov.	2.73	58.8	.046	Nov.	2.20	69.5	.032
Dec.	2.92	75.2	.039	Dec.	2.25	79.2	.028
Year	32.12	573.9	.056	Year	(29.27)	..	..

<i>Kew Observatory, Surrey.</i> METEOROLOGICAL OFFICE. Beckley Gauge. 20 ft. above Sea.				<i>The Old House, Sevenoaks, Kent.</i> W. TATTERSALL, Esq., F.R.Met.Soc. N. and Z's. Hyetograph. 510 ft. above Sea.			
1918.	Rainfall.	Duration.	Rate per hour.	1918.	Rainfall.	Duration.	Rate per hour.
	in.	hours.	in.		in.	hours.	in.
Jan.	2.92	64.5	.045	Jan.	3.33	71.0	.047
Feb. ....	.85	23.5	.036	Feb.	1.53	58.5	.026
March ....	.88	19.8	.044	March ....	.94	34.0	.028
April	3.10	80.7	.038	April	3.80	101.0	.038
May	1.78	31.5	.056	May	2.13	38.5	.055
June	1.15	21.1	.055	June ....	.94	27.5	.034
July	4.66	55.1	.084	July	5.38	50.0	.108
Aug.	1.42	25.7	.055	Aug.	1.84	52.0	.035
Sept.	5.70	60.8	.094	Sept.	5.32	88.0	.060
Oct.	1.18	36.4	.032	Oct.	2.10	..	..
Nov.	2.16	49.0	.044	Nov.	2.32	..	..
Dec.	2.10	57.2	.037	Dec.	2.81	92.0	.031
Year	27.90	525.3	.053	Year	32.44	..	..
<i>Isfield Place, Sussex. D.*</i> MAJOR H. KING. N. and Z's. Hyetograph. 41 ft. above Sea.				<i>Beachy Head, Sussex. D.</i> AIR MINISTRY. N. and Z's. Hyetograph. 506 ft. above Sea.			
	in.	hours.	in.		in.	hours.	in.
Jan.	3.88	(57.5)	.067	Jan.	2.33	50.7	.046
Feb. ....	.89	24.7	.036	Feb. ....	.99	43.1	.023
March ..	1.17	(24.3)	.048	March	1.16	38.7	.030
April	3.12	..	..	April	2.28	127.2	.018
May	1.62	..	..	May	1.70	39.7	.043
June	1.47	24.4	.060	June ....	.76	34.1	.022
July	4.51	40.0	.113	July	3.71	55.0	.067
Aug.	1.75	27.8	.063	Aug.	1.94	51.7	.037
Sept.	7.16	75.6	.095	Sept.	5.58	106.6	.052
Oct.	1.98	58.3	.034	Oct.	2.40	107.6	.022
Nov.	2.35	49.7	.047	Nov.	2.26	90.1	.025
Dec.	2.56	59.0	.043	Dec.	1.99	133.6	.015
Year	32.46	..	..	Year	27.10	878.1	.031
<i>Colshot, Hampshire. D.</i> AIR MINISTRY. N. and Z's. Hyetograph. 7 ft. above Sea.				<i>Timsbury, Hants.</i> D. KITCHINGMAN, Esq., M.Inst.C.E. N. & Z. Tipping-bucket. 90 ft. above Sea.			
	in.	hours.	in.		in.	hours.	in.
Jan.	(1.67)	..	..	Jan.	3.64	65.0	.056
Feb.	1.01	..	..	Feb.	1.61	44.7	.036
March ....	.88	45.0	.020	March	1.07	34.2	.031
April	1.92	48.0	.040	April	2.87	60.0	.048
May	1.51	33.0	.046	May	1.80	27.7	.065
June	1.13	15.5	.073	June ....	.81	16.5	.049
July	2.93	46.9	.062	July	5.25	71.5	.073
Aug.	1.98	22.8	.087	Aug.	2.07	36.0	.058
Sept.	4.68	64.1	.073	Sept.	5.32	78.5	.068
Oct. ....	.94	48.2	.020	Oct.	1.93	51.7	.037
Nov.	1.90	50.8	.037	Nov.	3.22	64.2	.050
Dec.	1.93	91.0	.021	Dec.	2.77	94.5	.029
Year	(22.48)	..	..	Year	32.36	644.5	.050

<i>Ashley Old Manor, Hants. D.</i> LEGH S. POWELL, ESQ. N. and Z's Hyetograph. 235 ft. above Sea.				<i>Twyford, Hants.</i> D. KITCHINGMAN, ESQ., M.Inst.C.E. N. & Z. Tipping-bucket. 139 ft. above Sea.			
1918.	Rainfall.	Duration.	Rate per hour.	1918.	Rainfall.	Duration.	Rate per hour.
	in.	hours.	in.		in.	hours.	in.
Jan.	3·75	75·9	·049	Jan.	3·65	68·7	·053
Feb.	1·63	50·0	·033	Feb.	1·65	57·5	·029
March	1·03	30·8	·033	March	·86	22·7	·038
April	3·04	70·5	·043	April	2·44	47·7	·051
May	1·66	26·2	·063	May	1·90	28·7	·066
June	·99	21·1	·047	June	·87	19·2	·045
July	6·19	61·6	·100	July	5·23	61·5	·085
Aug.	1·89	34·6	·055	Aug.	1·99	34·5	·058
Sept.	5·17	65·2	·079	Sept.	5·81	74·7	·078
Oct.	1·82	56·0	·033	Oct.	1·47	34·5	·043
Nov.	3·31	64·3	·051	Nov.	3·53	51·0	·069
Dec.	2·82	91·7	·031	Dec.	2·36	80·5	·029
Year	33·30	647·9	·051	Year	31·76	581·2	·054
<i>Chiltern Road, Hitchin, Herts.</i> A. LATCHMORE, ESQ. N. and Z's Hyetograph. 297 ft. above Sea.				<i>Benson Observatory, Oxfordshire.</i> W. H. DINES, ESQ. F.R.S. Dines Gauge. 186 ft. above Sea.			
	in.	hours.	in.		in.	hours.	in.
Jan.	2·49	..	..	Jan.	2·26	45·0	·050
Feb.	·69	..	..	Feb.	·71	20·5	·035
March	·74	..	..	March	·47	13·7	·034
April	3·58	..	..	April	3·18	64·4	·049
May	2·26	..	..	May	1·68	23·7	·071
June	·53	..	..	June	·54	19·2	·028
July	2·26	..	..	July	3·35	33·2	·101
Aug.	·71	..	..	Aug.	1·36	20·6	·066
Sept.	5·64	78·2	·072	Sept.	4·56	65·6	·069
Oct.	1·29	62·0	·021	Oct.	1·78	55·7	·032
Nov.	2·26	66·6	·034	Nov.	1·85	46·1	·040
Dec.	1·98	53·1	·037	Dec.	1·65	42·7	·039
Year	24·43	..	..	Year	23·39	450·4	·052
<i>Cardington, Bedfordshire. D.</i> AIR MINISTRY. N. and Z's Hyetograph. 120 ft. above Sea.				<i>Rookwood, Copdock, Suffolk. D</i> F. L. BLAND, ESQ. N. & Z's Tipping-bucket. 174 ft. above Sea.			
	in.	hours.	in.		in.	hours.	in.
Jan. ....	..	..	..	Jan.	2·50	(52·0)	·048
Feb. ....	..	..	..	Feb.	·65	18·5	·035
March ....	..	..	..	March	·83	29·0	·029
April	2·90	102·2	·028	April .. .	2·47	49·5	·050
May	2·20	42·9	·051	May	1·67	24·0	·070
June	·50	18·4	·027	June	1·54	17·0	·091
July	2·70	33·4	·081	July	3·88	43·5	·089
Aug.	·50	37·0	·014	Aug.	1·56	24·0	·065
Sept.	5·15	116·3	·044	Sept.	3·93	(49·0)	·080
Oct.	1·27	70·1	·018	Oct.	2·13	(86·0)	·025
Nov.	2·05	70·9	·029	Nov.	1·89	42·0	·045
Dec.	1·60	101·2	·016	Dec.	2·87	76·0	·038
Year ....	..	..	..	Year	25·92	510·5	·051

Fulham St. Mary, Norfolk, D.
AIR MINISTRY.
N. and Z's. Hyetograph. 125 ft. above Sea.

1918.	Rainfall.	Duration.	Rate per hour.
	in.	hours.	in.
Jan.	2.21	60.9	.036
Feb. ....	.85	35.2	.024
March ...	.65	39.5	.016
April	3.46	107.6	.032
May ....	.92	23.8	.038
June	1.45	33.3	.044
July	4.10	65.1	.063
Aug.	1.07	43.8	.024
Sept.	3.55	94.4	.038
Oct.	2.87	112.7	.025
Nov.	1.76	55.2	.032
Dec.	3.52	114.0	.031
Year	26.41	785.5	.034

Lyngate Cottage, Worstead, Norfolk.
ROBERT J. CROSS, ESQ.
N. and Z's. Hyetograph. 55 ft. above Sea.

1918.	Rainfall.	Duration.	Rate per hour.
	in.	hours.	in.
Jan.	2.36	48.9	.048
Feb.	1.21	27.2	.044
March ....	.63	20.7	.030
April	2.68	48.5	.055
May ....	.80	8.8	.091
June	1.20	12.4	.097
July	4.01	25.4	.158
Aug.	2.32	48.2	.048
Sept.	4.25	65.1	.065
Oct.	2.53	51.9	.049
Nov.	1.57	38.7	.041
Dec.	3.63	63.9	.057
Year	27.19	459.7	.059

*The Hoe, Plymouth, Devon. D**
JAMES PATON, ESQ. C.E.
Halliwell Recorder. 117 ft. above Sea.

	in.	hours.	in.
Jan.	3.86	80.1	.048
Feb.	2.32	67.2	.034
March	2.28	46.0	.050
April	1.41	39.7	.036
May ....	.83	23.5	.035
June	1.12	18.4	.061
July	3.44	53.6	.064
Aug.	2.13	34.2	.062
Sept.	8.00	92.7	.086
Oct.	2.71	59.2	.046
Nov.	3.20	56.0	.057
Dec.	6.32	160.8	.039
Year	37.62	731.4	.051

*Freedom Park, Plymouth, Devon. D**
JAMES PATON, ESQ., C.E.
N. and Z's. Hyetograph. 208 ft. above Sea.

	in.	hours.	in.
Jan.	4.41	85.3	.052
Feb.	2.61	64.1	.041
March	2.51	43.6	.058
April	1.55	38.1	.041
May ....	.85	22.8	.037
June	1.26	17.0	.074
July	3.45	52.6	.066
Aug.	2.28	29.6	.077
Sept.	8.62	81.7	.105
Oct.	3.07	54.3	.056
Nov.	3.40	65.1	.052
Dec.	6.89	166.1	.041
Year	40.90	720.3	.057

Moretonhampstead Rectory, Devon. D
REV. S. D. DEWEY, F.R.Met.Soc.
N. and Z's. Hyetograph. 600 ft. above Sea

	in.	hours.	in.
Jan.	5.20	59.6	.087
Feb.	2.18	43.3	.050
March	1.93	26.5	.073
April	3.00	50.9	.059
May	1.07	15.0	.071
June	1.24	19.1	.065
July	3.18	34.2	.093
Aug.	2.55	28.7	.089
Sept.	7.14	61.9	.115
Oct.	1.98	38.6	.051
Nov.	4.30	43.1	.100
Dec.	5.29	85.7	.062
Year	39.06	506.6	.077

Falmouth Observatory, Cornwall.
METEOROLOGICAL OFFICE.
Beckley Gauge. 169 ft. above Sea.

	in.	hours.	in.
Jan.	5.18	72.4	.071
Feb.	3.63	75.0	.048
March	1.86	35.3	.053
April	2.11	50.1	.042
May	1.03	16.9	.061
June ....	.99	11.5	.086
July	3.19	58.2	.055
Aug.	2.21	43.5	.051
Sept.	8.21	87.6	.094
Oct.	3.89	75.4	.051
Nov.	3.49	63.6	.055
Dec.	8.18	151.5	.054
Year	43.97	741.0	.059

Dollarward House, Cirencester, Glos.D
C. P. HOOKER, Esq., F.R.Met.Soc.
N. and Z's. Hyetograph. 366 ft. above Sea.

1918.	Rainfall.	Duration.	Rate per hour.
	in.	hours.	in.
Jan.	3.52	94.0	.037
Feb.	2.00	73.0	.027
March	1.46	44.6	.033
April	2.76	83.2	.033
May	2.04	37.1	.055
June	1.30	28.0	.046
July	3.76	50.0	.075
Aug.	2.42	40.3	.060
Sept.	6.82	128.3	.053
Oct.	2.04	91.3	.022
Nov.	2.87	71.9	.040
Dec.	3.64	144.0	.025
Year	34.63	885.7	.039

Mayfield House [Ashbourne], Staffs.D
GRAHAM C. LAWSON, Esq.
Casella's Recorder. 374 ft. above Sea.

1918.	Rainfall.	Duration.	Rate per hour.
	in.	hours.	in.
Jan.	2.36	67.5	.035
Feb.	2.59	76.4	.034
March	1.75	35.2	.050
April	1.22	32.0	.038
May	2.60	36.7	.071
June	1.06	31.1	.034
July	4.12	55.4	.074
Aug.	2.39	52.6	.046
Sept.	8.04	148.2	.054
Oct.	1.87	39.6	.047
Nov.	2.09	71.4	.029
Dec.	5.61	108.5	.052
Year	35.70	754.6	.047

Perry Bar, Birmingham, Wares. D.
P. H. BUDGEN, Esq., F.R.Met.Soc.
N. and Z's. Hyetograph. 340 ft. above Sea.

	in.	hours.	in.
Jan.	2.54	76.3	.033
Feb.	1.45	50.8	.029
March	1.25	49.4	.025
April	2.77	88.6	.031
May	2.08	51.5	.040
June ....	.80	28.0	.029
July	2.71	42.6	.063
Aug.	1.52	48.2	.031
Sept.	6.83	124.5	.055
Oct.	1.26	47.6	.026
Nov.	1.75	72.8	.024
Dec.	2.85	116.0	.025
Year	27.81	796.3	.035

Trent Lane, Nottingham.
A. BROWN, Esq., M.Inst.C.E., F.R.Met.Soc.
Halliwell Recorder. 85 ft. above Sea.

	in.	hours.	in.
Jan.	1.98	41.3	.048
Feb.	2.04	30.3	.067
March ....	.68	16.3	.042
April	1.60	31.4	.051
May	1.90	17.1	.111
June ....	.29	11.4	.025
July	1.90	22.1	.086
Aug.	1.25	33.3	.038
Sept.	4.38	68.5	.064
Oct.	1.36	37.6	.036
Nov.	1.61	30.2	.053
Dec.	2.60	44.6	.058
Year	21.59	384.1	.056

Hodsock Priory, Nottinghamshire.
LT.-COL. H. MELLISH, C.B., F.R.Met.Soc.
Halliwell Recorder. 56 ft. above Sea.

	in.	hours.	in.
Jan.	1.63	41.7	.039
Feb.	1.35	33.8	.040
March ....	.85	26.0	.033
April	1.49	25.1	.059
May	1.95	25.8	.076
June ....	.80	12.4	.065
July	3.64	30.7	.119
Aug.	1.91	40.5	.047
Sept.	4.26	84.7	.050
Oct.	1.14	35.8	.032
Nov.	1.40	37.2	.038
Dec.	2.65	63.3	.042
Year	23.07	457.0	.050

Bidston Observatory, Cheshire.D
MERSEY DOCKS AND HARBOUR BOARD.
Osler's Guage. 189 ft. above Sea.

	in.	hours.	in.
Jan.	1.68	49.5	.034
Feb.	1.93	64.9	.030
March ....	.92	29.2	.031
April	1.22	29.9	.041
May	2.31	62.1	.037
June	1.60	40.4	.040
July	4.12	61.7	.067
Aug.	1.98	52.5	.038
Sept.	6.39	144.1	.044
Oct.	2.10	69.5	.030
Nov.	1.54	61.9	.025
Dec.	6.14	129.0	.048
Year	31.93	794.7	.040

"Myra," Blundellsands, Lancashire.
 HUGH MONTGOMERY, Esq., F.R.Met.Soc.
 N. and Z's. Hyetograph. 35 ft. above Sea.

1918.	Rainfall.	Duration.	Rate per hour.
	in.	hours.	in.
Jan.	1.88	72.5	.026
Feb.	2.80	68.5	.041
March ....	.97	31.8	.031
April	1.01	30.0	.034
May	2.68	58.7	.046
June	1.68	30.0	.056
July	3.44	45.3	.076
Aug.	2.06	43.0	.048
Sept.	7.33	134.7	.054
Oct.	2.53	62.3	.041
Nov.	1.83	54.0	.034
Dec.	6.42	114.0	.056
Year	34.63	744.8	.046

Queens Park, Bolton, Lancashire.
 THOS. MIDGLEY, Esq., F.R.Met.Soc.
 Casella's Recorder. 342 ft. above Sea.

1913.	Rainfall.	Duration.	Rate per hour.
	in.	hours.	in.
Jan.	3.72	105.5	.035
Feb.	4.71	102.8	.046
March	2.13	55.0	.039
April	1.06	29.0	.037
May	3.02	55.5	.054
June	2.19	50.0	.044
July	4.18	59.2	.070
Aug.	4.17	47.8	.087
Sept.	12.71	178.7	.071
Oct.	5.31	83.0	.064
Nov.	3.09	76.5	.040
Dec.	9.76	161.0	.061
Year	56.05	1004.0	.056

Worden Hall, Leyland, Lancashire.
 H. NOWELL FFARINGTON, Esq., F.R.Met.Soc.
 N. and Z's. Hyetograph. 125 ft. above Sea.

	in.	hours.	in.
Jan.	2.81	69.7	.040
Feb.	3.84	97.1	.040
March	1.29	40.1	.032
April	1.07	25.6	.042
May	2.61	48.2	.054
June	2.21	34.8	.063
July	4.45	44.5	.100
Aug.	3.82	49.9	.076
Sept.	9.99	154.3	.065
Oct.	3.59	86.9	.041
Nov.	2.52	63.4	.040
Dec.	7.31	136.8	.054
Year	45.51	851.3	.053

Hesketh Park, Southport, Lancashire.
 J. BAXENDELL, Esq., F.R.Met.Soc.
 N. and Z's. Fernley gauge. 39 ft. above Sea.

	in.	hours.	in.
Jan.	2.87	74.4	.038
Feb.	2.89	77.6	.037
March	1.13	39.6	.029
April	1.04	32.0	.033
May	3.28	57.0	.058
June	1.66	28.7	.058
July	4.06	46.7	.087
Aug.	2.88	45.5	.063
Sept.	8.49	136.2	.062
Oct.	3.28	69.1	.047
Nov.	1.97	56.9	.035
Dec.	6.68	134.8	.050
Year	40.23	798.5	.050

Barrow, Walney I., Lancashire. D.
 AIR MINISTRY.
 N. and Z's. Hyetograph. 70 ft. above Sea.

	in.	hours.	in.
Jan.	3.77	105.9	.036
Feb.	3.40	92.2	.037
March	1.39	58.4	.024
April	1.18	35.1	.034
May	2.64	69.3	.038
June	1.92	36.2	.053
July	4.39	66.6	.066
Aug.	3.97	52.3	.076
Sept.	6.90	106.4	.065
Oct.	3.26	72.9	.045
Nov.	2.39	56.9	.042
Dec.	7.11	138.9	.051
Year	42.32	891.1	.047

*Greg Observatory, Lancaster, Lancs. D**
 NEVILLE HOLDEN, Esq., per M.O.
 Beckley Gauge. 312 feet above sea.

	in.	hours.	in.
Jan.	4.37	(77.2)	.056
Feb.	4.73	71.8	.066
March	1.90	44.5	.043
April	1.33	27.6	.048
May	2.17	35.3	.061
June	2.43	30.2	.081
July	5.47	51.8	.105
Aug.	4.45	54.7	.081
Sept.	9.50	116.7	.081
Oct.	4.71	82.0	.057
Nov.	2.85	54.1	.053
Dec.	7.94	122.9	.065
Year	51.85	768.8	.067

Huddersfield Cemetery, Yorkshire.
J. FIRTH, ESQ.
Halliwell Recorder. 410 ft. above Sea.

1918.	Rainfall.	Duration.	Rate per hour.
	in.	hours.	in.
Jan.	2.57	78.7	.033
Feb.	5.40	107.4	.050
March	1.38	50.8	.027
April.	1.10	26.3	.042
May.	3.75	42.5	.088
June ....	.93	25.1	.037
July.	3.29	41.8	.079
Aug.	1.82	43.7	.042
Sept.	10.86	172.5	.063
Oct.	2.64	73.1	.036
Nov.	1.72	53.6	.032
Dec.	5.93	131.2	.045
Year.	41.39	846.7	.049

Earby Sewage Works, Yorkshire. D.
J. E. ALDERSLEY, ESQ.
N. and Z's. Hyetograph. 425 ft. above Sea.

	in.	hours.	in.
Jan.	3.08	46.3	.067
Feb.	6.25	84.3	.074
March	1.40	37.2	.038
April ....	.99	(21.7)	.046
May.	1.41	26.9	.052
June	1.59	23.0	.069
July.	4.38	44.1	.099
Aug.	3.31	50.0	.066
Sept.	11.50	115.8	.100
Oct.	3.89	89.9	.043
Nov.	2.21	51.2	.043
Dec.	8.26	(157.0)	.053
Year.	48.27	747.4	.045

Howden, Yorkshire, E.R. D.
AIR MINISTRY.
N. and Z's. Hyetograph. 20 ft. above Sea.

	in.	hours.	in.
Jan.	1.44	74.7	.019
Feb.	1.98	87.0	.023
March	1.07	38.2	.028
April	1.22	34.7	.035
May.	2.12	31.6	.067
June ....	.73	(23.0)	.032
July.	4.52	(54.5)	.083
Aug.	2.38	(58.9)	.041
Sept.	4.84	(137.6)	.035
Oct.	1.23	(65.6)	.019
Nov.	1.37	(67.4)	.020
Dec.	3.09	145.7	.021
Year.	25.99	(818.9)	.032

Lower Laithe Res., Haworth, Yorks. D
M. R. BARNETT, ESQ., M.Inst.C.E.
N. and Z's. Hyetograph. 772 ft. above Sea.

1918.	Rainfall.	Duration.	Rate per hour.
	in.	hours.	in.
Jan.	3.81	126.5	.030
Feb.	7.65	176.2	.043
March	1.76	65.2	.027
April	1.09	39.0	.028
May.	2.80	49.7	.056
June	1.92	46.0	.042
July.	5.37	55.7	.096
Aug.	2.79	79.3	.035
Sept.	11.69	265.7	.044
Oct.	3.58	139.5	.026
Nov.	2.81	83.0	.034
Dec.	8.63	195.2	.044
Year.	53.90	1321.0	.041

Town Hall, Skipton, Yorkshire. D
A. E. W. ALDRIDGE, ESQ.
N. and Z's. Hyetograph. 367 ft. above Sea.

	in.	hours.	in.
Jan.	2.93	51.0	.057
Feb.	5.17	93.5	.055
March	1.43	35.0	.041
April ....	.98	22.3	.044
May.	1.90	32.0	.059
June	1.36	16.0	.085
July.	4.01	42.0	.096
Aug.	2.93	48.2	.061
Sept.	8.94	160.3	.056
Oct.	2.72	73.2	.037
Nov.	1.78	46.3	.038
Dec.	6.52	138.0	.047
Year.	40.67	757.8	.054

Mount St. John, Thirsk, Yorkshire. D
A. J. WALKER, ESQ., F.R.Met.Soc.
Halliwell Recorder. 542 ft. above Sea.

	in.	hours.	in.
Jan.	2.30	69.9	.033
Feb.	2.03	48.1	.042
March	1.23	41.6	.030
April	1.49	40.9	.036
May.	2.57	33.8	.076
June.	1.13	13.5	.084
July.	3.56	46.5	.077
Aug.	2.37	50.5	.047
Sept.	5.44	87.7	.062
Oct.	1.84	54.8	.034
Nov.	1.69	46.3	.036
Dec.	3.69	80.4	.046
Year.	29.34	614.0	.048

*Mount St. John, Thirsk, Yorkshire. D*A. J. WALKER, ESQ., F.R.Met.Soc.
Lander & Smith's Gauge. 542 ft. above Sea.

1918.	Rainfall.	Duration.	Rate per hour.
	in.	hours.	in.
Jan.....	2.30	71.5	.032
Feb.	2.03	50.1	.040
March	1.23	39.1	.031
April	1.49	32.1	.046
May	2.57	31.6	.081
June	1.13	15.8	.072
July	3.56	48.9	.073
Aug.	2.37	49.6	.048
Sept.	5.44	86.8	.063
Oct.	1.84	55.2	.033
Nov.	1.69	43.4	.039
Dec.	3.69	81.3	.045
Year	29.34	605.4	.048

*Mount St. John, Thirsk, Yorkshire. D*A. J. WALKER, ESQ., F.R.Met.Soc.
N. and Z's. Hyetograph. 542 ft. above Sea.

1918.	Rainfall.	Duration.	Rate per hour.
	in.	hours.	in.
Jan.....	2.30	67.1	.034
Feb.	2.03	48.5	.042
March	1.23	36.7	.034
April	1.49	34.6	.043
May.....	2.57	31.3	.082
June	1.13	14.6	.077
July	3.56	43.8	.081
Aug.	2.37	47.3	.050
Sept.	5.44	86.1	.063
Oct.	1.84	56.2	.033
Nov.	1.69	44.1	.038
Dec.	3.69	77.3	.048
Year	29.34	587.6	.050

Pembroke, Pembrokeshire. D.

AIR MINISTRY.

N. and Z's. Hyetograph. 103 ft. above Sea.

	in.	hours.	in.
Jan.....	3.17	138.0	.023
Feb.	2.01	78.7	.025
March	2.31	48.0	.048
April	2.28	48.0	.047
May.....	1.05	44.3	.024
June	1.18	32.5	.036
July	4.38	87.2	.050
Aug.	2.91	69.3	.042
Sept.	8.53	156.5	.054
Oct.	4.04	129.0	.031
Nov.	3.89	55.2	.070
Dec.	6.98	141.8	.049
Year	42.73	1028.5	.042

Cray Reservoir, Breconshire.

LT. G. R. COLLINSON, C.E.

Halliwell Recorder. 1030 ft. above Sea.

	in.	hours.	in.
Jan.	8.16	217.7	.037
Feb.	5.97	165.7	.036
March	3.84	96.6	.040
April	2.22	66.5	.033
May	3.19	76.8	.041
June	2.48	58.6	.042
July	9.18	134.9	.068
Aug.	2.40	78.7	.030
Sept.	12.21	213.2	.057
Oct.	5.70	168.9	.034
Nov.	5.56	128.9	.043
Dec.	11.83	277.8	.043
Year	72.74	1684.3	.043

Aber Clyd, Black Mtns., Breconshire.

J. F. JUPP, ESQ., C.E.

N. and Z's. Hyetograph. 1880 ft. above Sea.

	in.	hours.	in.
Jan.	5.93	89.8	.066
Feb.	3.16	69.2	.046
March	3.51	44.8	.078
April	4.29	63.2	.068
May	3.25	58.7	.055
June	1.46	33.6	.043
July	6.50	74.2	.088
Aug.	3.27	51.6	.063
Sept.	9.35	116.4	.080
Oct.	2.70	116.9	.023
Nov.	4.10	68.2	.060
Dec.	7.61	119.8	.064
Year	55.13	906.4	.061

Llangefni, Anglesey.

AIR MINISTRY.

N. and Z's. Hyetograph. 189 ft. above Sea.

	in.	hours.	in.
Jan.....	3.79	99.7	.038
Feb.	3.17	95.4	.033
March	1.64	49.1	.033
April	1.20	33.3	.036
May.....	2.62	77.0	.034
June	2.04	33.5	.061
July	4.80	57.0	.084
August	1.49	48.4	.031
Sept.	8.84	126.5	.070
Oct.	4.67	155.0	.030
Nov.	2.39	85.7	.028
Dec.	6.81	168.0	.041
Year	43.46	1028.6	.042

Luce Bay R. N. Airship Stn., Wigtown. D.
 AIR MINISTRY.
 N. and Z's. Hyetograph. 50 ft. above Sea.

1918.	Rainfall.	Duration.	Rate per hour.
	in.	hours.	in.
Jan.	4.64	70.4	.066
Feb.	4.98	90.5	.055
March	1.44	29.4	.049
April ....	.86	22.1	.039
May	3.62	50.8	.071
June	1.42	32.9	.043
July	2.64	42.4	.062
Aug.	3.80	64.3	.059
Sept.	5.60	85.5	.065
Oct.	5.08	97.5	.052
Nov.	3.88	82.4	.047
Dec.	7.12	128.8	.055
Year	45.08	797.0	.057

Eskdalemuir Obsy., Dumfries.
 METEOROLOGICAL OFFICE.
 Beckley Gauge. 799 ft. above Sea.

1918.	Rainfall.	Duration.	Rate per hour.
	in.	hours.	in.
Jan.	8.44	180.2	.047
Feb.	8.58	180.7	.047
March	1.99	56.4	.035
April ....	.78	19.9	.039
May	3.17	62.6	.051
June	1.92	40.3	.048
July	4.08	67.6	.060
Aug.	4.23	91.7	.046
Sept.	9.50	119.3	.080
Oct.	9.97	194.2	.051
Nov.	4.57	89.2	.051
Dec.	6.73	159.3	.042
Year	63.96	1261.4	.055

East Fortune, Haddingtonshire. D.
 AIR MINISTRY.
 N. and Z's. Hyetograph. 85 ft. above Sea.

	in.	hours.	in.
Jan.	2.21	78.2	.028
Feb.	2.81	57.5	.049
March	1.02	41.3	.025
April ....	.60	45.1	.013
May	2.30	52.1	.044
June .....	.30	10.2	.029
July	3.89	62.7	.062
Aug.	2.10	47.2	.044
Sept.	3.95	69.6	.057
Oct.	2.03	67.7	.030
Nov.	1.06	31.3	.034
Dec.	1.42	42.1	.034
Year	23.69	605.0	.039

Inchinnan, Renfrewshire. D.
 AIR MINISTRY.
 N. and Z's. Hyetograph. 105 ft. above Sea.

	in.	hours.	in.
Jan.	4.42	191.0	.023
Feb.	5.26	163.5	.034
March	1.63	52.2	.031
April ....	.56	22.0	.025
May	2.04	82.0	.025
June .....	.98	36.8	.027
July	3.63	80.5	.045
Aug.	2.70	77.5	.035
Sept.	5.46	117.7	.046
Oct.	4.58	212.5	.022
Nov.	4.35	147.5	.030
Dec.	4.08	134.5	.030
Year	39.69	1317.7	.030

Pinewood, Crathes, Kincardineshire. D.
 LIEUT. JAMES SMITH.
 N. and Z's. Hyetograph. 142 ft. above Sea.

	in.	hours.	in.
Jan.	2.70	87.7	.031
Feb.	1.66	..	..
March	1.66	52.5	.032
April ....	.54	17.8	.030
May	2.86	62.3	.046
June ....	.95	29.0	.033
July	5.33	95.8	.056
Aug.	2.03	42.3	.048
Sept.	3.76	81.7	.046
Oct.	2.87	62.8	.046
Nov.	2.72	33.5	.081
Dec.	1.71	32.7	.052
Year	28.79	..	..

Aberdeen, King's College, Aberdeen.
 METEOROLOGICAL OFFICE.
 Beckley Gauge. 44 ft. above Sea.

	in.	hours.	in.
Jan.	2.39	(68.3)	.035
Feb.	1.27	47.2	.027
March	1.56	52.7	.030
April ....	.39	20.2	.019
May	1.79	37.1	.048
June	1.33	35.2	.038
July	5.84	91.3	.064
Aug.	3.64	41.3	.088
Sept.	4.19	85.7	.048
Oct.	2.34	59.2	.039
Nov.	1.82	28.7	.063
Dec.	2.47	57.5	.043
Year	29.03	624.4	.046

University College, Cork. D.
PROF. ISAAC SWAIN.
 N. and Z's Hyetograph. 66 ft. above Sea.

1918.	Rainfall.	Duration.	Rate per hour.
	in.	hours.	in.
Jan.	4.94	95.1	.052
Feb.	6.12	67.8	.090
March	3.69	51.6	.071
April	1.73	37.2	.046
May	2.75	37.9	.071
June	1.11	17.6	.063
July	4.43	46.9	.095
Aug.	2.53	24.5	.103
Sept.	6.41	64.8	.099
Oct.	3.39	75.8	.045
Nov.	3.22	83.6	.038
Dec.	7.12	102.8	.069
Year	47.44	705.6	.067

Armagh Observatory, Co. Armagh.
METEOROLOGICAL OFFICE.
 Beckley Gauge. 210 ft. above Sea.

	in.	hours.	in.
Jan.	(3.21)	(48.3)	.067
Feb.	3.74	(97.2)	.038
March	1.30	22.1	.059
April	1.11	23.6	.047
May	2.31	44.0	.052
June	1.02	20.7	.049
July	3.26	31.9	.102
Aug.	2.54	44.4	.057
Sept.	5.45	93.9	.058
Oct.	3.87	94.4	.041
Nov.	4.16	77.6	.054
Dec.	3.55	(73.0)	.049
Year	(35.52)	671.1	.058

Valencia Observatory, Co. Kerry.
METEOROLOGICAL OFFICE.
 Beckley Gauge. 30 ft. above Sea.

1918.	Rainfall.	Duration.	Rate per hour.
	in.	hours.	in.
Jan.	8.07	178.0	.045
Feb.	6.83	172.3	.040
March ...	4.06	100.5	.040
April	1.71	43.8	.039
May	2.68	67.7	.040
June	2.25	56.4	.040
July	4.89	69.6	.071
Aug.	2.78	45.0	.062
Sept.	7.69	93.5	.082
Oct.	7.49	95.4	.078
Nov.	6.19	73.4	.084
Dec.	8.61	122.7	.070
Year	63.25	1118.3	.057

*Glendra Lodge, Co., Londonderry. D**
M. A. ROBINSON, ESQ., C.E.
 N. and Z's Hyetograph. 950 ft. above Sea.

	in.	hours.	in.
Jan.	4.66	(82.2)	.057
Feb.	7.63	(123.1)	.062
March	1.97	33.5	.059
April	2.18	(53.8)	.041
May	3.51	(63.2)	.056
June	3.87	71.0	.054
July	4.61	78.3	.059
Aug.	6.12	87.4	.070
Sept.	8.99	(116.6)	.077
Oct.	6.64	137.5	.048
Nov.	6.65	89.5	.074
Dec.	7.15	181.0	.040
Year	63.98	1117.1	.057

centre of the country rarely, if ever, occur in the very rainy districts. Cyclonic rains apparently exhibit a wide range of intensity, but there is probably an upper limit far lower than the thunderstorm rate. For satisfactory information as to the relative rates of rainfall in thunderstorm and cyclonic rains we must rely largely on the chance of their occurring with sufficient frequency, and in a sufficiently recognizable manner, at stations where self-recording rain gauges are at work. Definite information as to orographic rainfall on the other hand may be obtained with certainty by the use of recording rain gauges at stations where such rains are known to predominate almost exclusively. We have frequently expressed the hope that records would be made in the English Lake District largely with this end in view, but, so far as we are aware, this has not been done.

Comparison of Amount, Duration and Intensity of Rainfall, and Number of Rain Days at Camden Square in 1918 with the Average for 37 years, 1881-1917.

YEAR.	AMOUNT.		DURATION.		INTENSITY.		RAIN DAYS	
	Total.	Per cent. of average	Total.	Per cent. of average	Rate per Hour.	Per cent. of average	Total.	Per cent. of average
	in.		hours		in.			
1881	27.92	112	486.3	110	.057	102	152	93
1882	27.14	109	480.7	108	.056	100	165	101
1883	24.40	98	393.5	89	.062	111	164	100
1884	20.35	82	336.8	76	.060	107	150	91
1885	26.64	107	470.0	106	.057	102	165	101
1886	27.01	109	427.2	96	.063	112	176	107
1887	19.21	77	300.3	68	.064	114	140	85
1888	27.74	112	435.7	98	.064	114	173	105
1889	23.85	96	428.5	97	.056	100	169	103
1890	21.23	85	409.5	92	.052	93	161	98
1891	28.15	113	490.3	111	.057	102	178	109
1892	22.61	91	372.5	84	.061	109	158	96
1893	19.80	80	388.0	88	.051	91	148	90
1894	27.94	112	477.7	108	.058	104	185	113
1895	21.47	86	380.0	86	.057	102	137	84
1896	23.52	95	404.3	91	.058	104	159	97
1897	22.86	92	371.2	84	.062	111	164	100
1898	m 17.69	71	m 298.5	67	.059	105	140	85
1899	22.54	91	337.5	76	.067	120	144	88
1900	23.28	94	366.3	83	.064	114	174	106
1901	22.17	89	310.2	70	M .071	127	m 128	78
1902	20.84	84	357.8	81	.059	105	162	99
1903	M 38.10	153	M 688.5	155	.055	98	179	109
1904	20.65	83	491.8	111	m .042	75	160	98
1905	22.97	92	456.4	103	.050	89	162	99
1906	24.26	98	420.4	95	.058	104	163	99
1907	23.01	93	418.8	95	.055	98	175	107
1908	23.67	95	500.7	113	.047	84	157	96
1909	26.75	107	576.5	130	.046	82	190	116
1910	25.36	102	491.2	111	.052	93	186	113
1911	24.79	100	473.0	107	.052	93	155	95
1912	27.88	112	516.2	117	.054	96	180	110
1913	22.41	90	453.0	102	.049	87	163	99
1914	25.72	103	513.6	116	.050	89	168	102
1915	32.18	129	568.9	128	.057	102	152	93
1916	34.01	137	627.8	142	.054	96	M 193	118
1917	30.04	121	476.3	108	.063	112	175	107
Average.	24.87	100	443.1	100	.056	100	164	100
1918	29.69	119	520.2	117	.057	102	195	119
Diff. from average	+ 4.82	+19	+77.1	+17	+ .001	+2	+31	+19

HEAVY RAINS IN SHORT PERIODS IN 1918.

THE study of heavy falls of rain in short periods of time is one of considerable difficulty on account of insufficiency of data. Such rains are invariably extremely local and the chance of their occurring at a spot where no rain gauge exists, or where, if a rain gauge does exist the Observer is at the actual time absent, is very great. The defect can only be minimized by the multiplication of rain gauges and especially by the increased use of self-recording gauges, which eliminate chance errors in the estimation of time and which record just as faithfully in the absence of the Observer as in his presence.

TABLE I.—*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.
10.....	·30	1·80	·65	3·90	1·00	6·00
20.....	·53	1·59	1·06	3·18	1·58	4·74
30.....	·70	1·40	1·35	2·70	2·00	4·00
40.....	·82	1·23	1·54	2·31	2·26	3·39
50.....	·92	1·10	1·67	2·00	2·42	2·90
60.....	1·00	1·00	1·75	1·75	2·50	2·50
70.....	1·07	·92	1·81	1·55	2·54	2·18
80.....	1·12	·84	1·85	1·39	2·57	1·93
90.....	1·15	·77	1·89	1·26	2·60	1·73
100.....	1·18	·71	1·92	1·15	2·62	1·57
110.....	1·21	·66	1·93	1·05	2·64	1·44
120.....	1·23	·61	1·94	·97	2·65	1·33

As things are we follow the only course open to us and bring together in a comparable form all the instances of intense rainfall which we hear of and which there is no reason to distrust. It has been found necessary to fix a lower limit in order that the lists should not be swamped with relatively unimportant falls, and in selecting this limit opportunity was taken to introduce a system of classification by which intense rainfalls

may be grouped under the respective headings, "worthy of notice," "remarkable" and "very rare." The limits of these three groups, for each interval of 10 minutes up to two hours are set out in Table I. and are further shown by the curves in *Fig. 1* on p. [39]. In the lists of heavy rains published each year the fifty-first of which is given on pp. [41] to [42] following, all instances of "remarkable" rains are indicated with a cross, whilst the few examples of "very rare" rains are marked with a double cross. Owing to the increase in the number of Observers it is not easy to form any sound basis of comparison between the number of noteworthy heavy rainfalls in different years. A rough idea can be gained by expressing the number of falls up to two hours' duration reported as a percentage of the total number of records received, and, judged by this standard 1918 was a normal year in this respect. The number of instances reported for the north-east of England was rather larger than usual, and it is interesting to note that no instances at all were reported for Scotland, and only one for Ireland. There appears little

Number of Noteworthy Rains of two hours duration or less.

Average.	England and Wales.					Scotland.	Ireland.	British Isles.	Per cent. of records received.
	S.E.	S.W.	N.E.	N.W.	Total.				
{ 1868-1917. }	15.9	7.4	4.2	2.0	29.5	2.2	1.1	32.8	1.0
1918.	31	9	12	2	54	0	1	55	1.1

doubt that very intense rainfalls are distinctly less common in Scotland and Ireland than in England, but it is difficult to make proper allowance for the smaller number of stations.

In Table II. are brought together all the instances of "very rare" rainfalls of duration not exceeding *one hour* which have occurred since records were first collected in 1867. Two records were added in 1918, both occurring in the course of the series of violent thunderstorms which marked the period July 16th to 20th in the south-east and centre of England. In neither case is the lower limit of "very rare" rainfalls more than barely exceeded. In addition to these two falls we have affixed the double cross to two records taken in Bedfordshire on May 17th, which exceeded the specified duration of one hour.

The intense rainfalls of 1918 took place almost entirely during three periods. The first embraced May 17th and the few days following, and was principally notable for a thunderstorm of exceptional severity in the

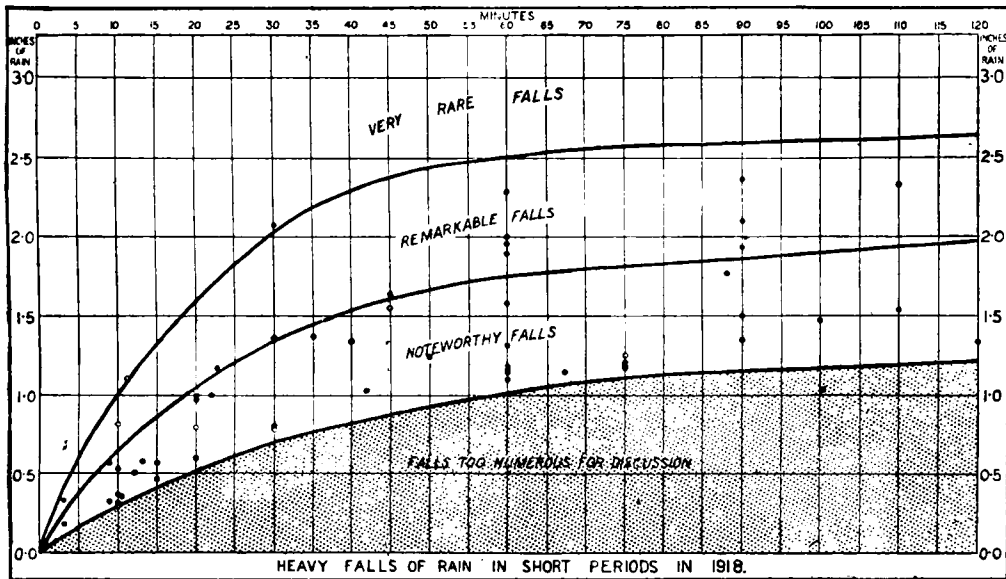
district round Woburn. The most remarkable rainfalls reported were 3·07 in. in 2 hours 30 minutes at Milton Bryant, and 3·25 in. in 3 hours

TABLE II.—*Rainfalls of very rare Intensity lasting for one hour or less.*

Year.	Date.	Div.	Station	Amount.	Duration.	Rate per hour.
				in.	hr. min.	in.
1912	May 8	XV.	Alexandria	·26	0 1½	10·40
1888	Mar. 24	XI.	Chepstow, Shirenewton Hall..	·33	0 2	9·90
1917	July 14	IV.	Norwich, Ipswich Road	·47	0 2½	11·28
1906*	June 17	IX.	Ilkley, Eaton Road.....	·50	0 4	7·50
1893	Aug. 10	VIII.	Preston, Corporation Offices...	1·25?	0 5?	15·00?
"	June 14	XI.	Chepstow, Shirenewton Hall..	·62	0 5	7·44
1906	Aug. 2	II.	Guildford, Piccard's Rough ...	·89	0 8	6·68
1892	July 3	VIII.	Bolton, The Park.....	1·00?	0 9?	6·67?
1902	May 30	III.	Cambridge, Sydney Street....	1·10	0 10	6·60
1878	June 23	I.	St. Pancras, Camden Square..	1·00	0 10	6·00
1912	July 22	VII.	Wirksworth, Manor House ...	1·00	0 10	6·00
1918	" 16	II.	Purley, Oakwood Avenue ...	1·10?	0 11	6·00?
1914	Aug. 14	XI.	Guernsey, St. Martin's Road.	1·50	0 15	6·00
1906	" 2	II.	Haslemere, Lower Street.....	1·46	0 15?	5·84?
1878	June 23	I.	St. Pancras, Camden Square..	1·43	0 15	5·72
1875	Aug. 7	II.	Canterbury, Harbledown.....	2·12	0 20	6·36
1878	June 23	I.	St. Pancras, Camden Square..	1·80	0 20	5·40
1897	" 24	III.	Luton Pumping Station	1·65	0 20	4·95
1878	" 23	I.	St. Pancras, Camden Square..	2·30	0 28	4·93
1880	July 22	XI.	Cowbridge, Ash Hall.....	2·90	0 30	5·80
1915	" 4	XI.	Abergavenny, The Chain	2·20	0 30	4·40
1918	" 17	I.	Shad Thames Pumping Stn.	2·07	0 30	4·14
1895	June 27	IX.	Middleton-in-the-Wolds	2·00	0 30	4·00
1902	Sep. 10	II.	Surbiton, Vronvelin.....	2·00	0 30	4·00
1904	July 27	II.	Cooling, Broomy Farm	2·66	0 45	3·55
1909	Sep. 29	V.	Ilfracombe Reservoir.....	2·50?	0 45	3·33?
1895	June 26	"	Marlborough	2·71	0 50	3·25
1915	" 30	IV.	Mildenhall.....	2·63	0 50	3·16
1903	July 18	VI.	Betley Hall [Crewe].....	2·53	0 50	3·04
1905	" 9	III.	Enfield, Carisbrooke.....	2·44	0 50	2·93
1911	May 31	II.	Epsom, Ashley Road	2·44	0 50	2·93
1901	July 29	"	Wadhurst, Lower Cousley Wood..	3·25?	0 55	3·55?
1913	June 17	IV.	Elveden Hall	2·85	0 58	2·95
1901	July 12	II.	Maidenhead, Lowood.....	3·63	1 0?	3·63?
1903	May 30	"	Beddington Corner.....	3·50	1 0	3·50
1911	" 26	"	Fareham, The Mount	3·00	1 0	3·00
1897	July 21	IV.	Ipswich, Bishops Hill	2·95	1 0	2·95
1895	June 26	VI.	Worcester, Diglis Lock.....	2·75	1 0	2·75
1909	" 1	XII.	Carsphairn, Shiel.....	2·71	1 0?	2·71?
1873	July 28	XVII.	Fettercairn	2·60	1 0	2·60
1889	June 7	II.	Tonbridge, Ferndale.....	2·60?	1 0?	2·60?
1886	July 25	VIII.	Sale, Brooklands.....	2·58	1 0	2·58
1899	" 22	V.	Dorchester Water Works.....	2·56	1 0?	2·56?
1875	" 22	"	Trowbridge, Sunnyside.....	2·53	1 0	2·53
"	June 29	III.	Cardington	2·50	1 0	2·50
1886	July 25	IX.	Wakefield, Stanley Vicarage..	2·50	1 0	2·50

* Did not appear in *British Rainfall*.

at Lidlington. Mr. C. J. Kilby of Milton Bryant remarks that the rainfall was apparently still heavier at the end of the village remote from his house. On the same day 2·27 in. fell in one hour at Stafford, and very large hail fell near Ruthin in North Wales. The second period included July 16th to 20th and was marked by three thunderstorms. On the early morning of July 16th a very destructive hail storm occurred over a narrow track extending from Holmwood to Bromley and yielding records of 1·10 in. in



When an entry in TABLE III. is queried the dot representing the fall is hollow.

11 minutes, and ·80 in. in 10 minutes, respectively, at Purley. On the following day more widespread thunderstorms brought exceptional falls in parts of London, Sussex, Essex and Suffolk. At Shad Thames Pumping Station, near the Tower Bridge, 2·07 in. fell in 30 minutes and at Poplar 1·18 in. in 23 minutes. The Suffolk storm brought 2·00 in. in an hour at Hawkedon and falls of about equal intensity at several adjacent stations. On July 20th the storm centres appeared to have moved northward and south-westward and exceptional rains were reported in North Nottinghamshire and other parts of the North Midlands, as well as on Salisbury Plain. At Woodsetts Grange, near Worksop, 2·96 in. fell in 4 hours 30 minutes, and at Gateford Hill 2·50 in. in 4 hours, whilst during the more intense portion of the storm 1·79 in. was measured in 1 hour 28 minutes in Worksop and ·53 in. in 10 minutes at Hodsock Priory. At Bradford on the same day

2·00 in. fell in 2 hours 30 minutes, and at Lower Laithe Reservoir, near Haworth, 1·96 in. in one hour. A “cloud-burst” of an exceptional nature was reported as occurring at Walsden, near Todmorden, but we have no details beyond those given in the local newspapers.

The only other intense rainfalls of importance reported during 1918 occurred in Surrey and Wiltshire, on September 5th, giving 1·63 in. in 45 minutes at Purley, and 1·00 in. in 20 minutes, at Kilmington.

TABLE III.—*Heavy Rains in Short Periods in 1918.*

Date.	Div.	Station.	Amount.	Duration.	Rate per hour.
			in.	hr. min.	in.
July 18	VI.	Birmingham, Perry Bar.....	·07	0 2	2·10
May 22	III.	Benson Observatory	·30	0 3	6·00x
July 20	VI.	Birmingham, Perry Bar.....	·19	0 3	3·80
May 13	VII.	Wirksworth, Manor House	·58	0 8½	4·10x
May 17	IX.	Elvington, The Glenne	·45	0 9	3·00
Sept. 7	VI.	Birmingham, Perry Bar.....	·32	0 9	2·13
July 16	II.	Purley, Riddlesdown Road	·80?	0 10?	4·80?
July 20	VII.	Worksop, Hodsock Priory	·53	0 10	3·18
July 17	II.	Hadlow Down	·37	0 10	2·22
July 26	II.	Bournemouth, Rodney House	·31	0 10	1·86
Aug. 12	VII.	Alderwasley Parsonage.....	·30?	0 10?	1·80?
May 21	IX.	Meltham, Harewood Lodge	·35	0 10½	2·00
July 16	II.	Purley, Oakwood Avenue	1·10?	0 11	6·00?xx
Aug. 3	VI.	Cirencester, Dollarward House	·50	0 12	2·60
May 22	IV.	Buckhurst Hill	·58	0 13	2·68
Aug. 3	VI.	Cirencester, Dollarward House	·57	0 15	2·28
May 21	VIII.	Bolton, Queen's Park	·47	0 15	1·88
May 21	VII.	Nottingham	1·02	0 20?	3·06
Sept. 5	V.	Kilmington Rectory	1·00	0 20	3·00
July 17	II.	Hadlow Down	·98	0 20	2·94
Sept. 5	II.	East Grinstead	·79	0 20?	2·37
Sept. 5	II.	Bromley	·60	0 20	1·80
July 17	I.	Hackney, Clapton Pond.....	1·00	0 22	2·73
July 17	I.	Poplar, Old Ford.....	1·18	0 23	3·08x
July 17	I.	Shad Thames Pumping Station	2·07	0 30	4·14xx
July 17	II.	Sutton, Camborne Road	1·35	0 30	2·70x
July 17	II.	Hadlow Down	1·35	0 30	2·70x
July 11	VII.	Thornton Curtis	·80	0 30	1·60
June 17	IV.	Ipswich, Rookwood, Copdock	·78?	0 30?	1·56?
July 17	I.	Hackney, Clapton Pond.....	1·35	0 35	2·31
July 17	I.	Poplar, Old Ford.....	1·34	0 40	2·01
July 17	I.	Lewisham, Clarendon Road	1·02	0 42	1·46
Sept. 5	II.	Purley, Oakwood Avenue	1·63	0 45	2·17x
July 17	IV.	Little Saxham Rectory	1·56	0 45?	2·08?
July 17	II.	Bexley Heath, The Broadway	1·23	0 50	1·48
Sept. 5	V.	Corsley, Sturford Mead	1·23	0 50	1·48
May 17	VI.	Stafford, Rising Brook	2·27	1 0	2·27x

TABLE III.—*Heavy Rains in Short Periods in 1918—(continued).*

Date.	Div.	Station	Amount.	Duration.	Rate per hour.
			in.	hr. min.	in.
July 17	IV.	Hawkedon Rectory.....	2·00	1 0	2·00x
July 20	IX.	Haworth, Lower Laithe Reservoir ..	1·96	1 0	1·96x
July 17	IV.	Bury St. Edmunds, Northgate Street	1·90	1 0	1·90x
July 20	V.	Salisbury Plain, Shrewton	1·59	1 0	1·59
Aug. 5	XXIII.	Milford, The Manse	1·31	1 0	1·31
July 17	II.	South Norwood, Holmesdale Road ..	1·19	1 0	1·19
July 17	IV.	High Ongar, Marden Ash	1·15	1 0	1·15
July 20	VI.	Coventry, Keresley Grange	1·15	1 0	1·15
May 22	X.	Alnwick Castle.....	1·14	1 0	1·14
May 17	IV.	Swaffham	1·10	1 0	1·10
July 18	III.	Bedford.....	1·16	1 7	1·04
July 17	I.	Victoria Park	1·25	1 15?	1·00
July 17	IV	Bulvan, Pear Tree Corner	1·21	1 15	·97
May 17	II.	Hildenborough, Hollanden House ..	1·19	1 15	·95
July 17	II.	Croydon, Waddon New Road	1·18	1 15	·95
July 20	VII.	Worksop, Clinton Villa	1·79	1 28	1·22
May 17	VII.	Brigg	2·36	1 30	1·57x
May 17	VII.	Billingham	2·10	1 30	1·40x
July 17	IV.	Bury St. Edmunds, Westley	1·93	1 30	1·29x
July 17	II.	Tilbury, Park View Observatory	1·50	1 30	1·00
July 23	X.	Alston, Nenthead	1·35	1 30	·90
July 17	I.	Hackney, Clapton Pond.....	1·48	1 40	·89
July 17	I.	Shad Thames Pumping Station	2·32	1 50	1·26x
July 17	I.	Poplar, Old Ford.....	1·53	1 50	·84
July 17	IV.	Felsted School	1·33	2 0	·67
May 17	III.	Milton Bryant	3·07?	2 30?	1·23xx
July 20	IX.	Bradford, Horton	2·06	2 30	·82
May 17	III.	Lidlington, White Lodge	3·25	3 0	1·08xx
July 20	VII.	Worksop, Gateford Hill	2·50	4 0	·63x
July 20	VII.	Worksop, Woodsetts Grange.....	2·96	4 30	·66x

HEAVY FALLS ON RAINFALL DAYS IN 1918.

THE year 1918 was marked by an unusual absence of heavy daily rainfalls. Extremely few cyclonic falls of any interest occurred, and the days on which the rainfall was sufficiently heavy to warrant a short description were either those of local thunderstorms, or of the winter orographical rains of the west of the British Isles, which are so frequent in an average year that we often pass them by without comment. Such thunderstorms as occurred, and they were not numerous, affected only small areas, and the distribution of rainfall did not on that account lend itself well to mapping.

We do not yet feel justified in increasing the space required for this section of *British Rainfall* by printing *all* daily readings which pass the limits of 2·50 in., or 7·5 per cent., of the annual total. This is the course which we feel to be the right one, but for the present we must continue, as in former volumes, to print only one such record for any station, *i.e.*, the maximum rainfall on any day in the year. In certain districts in the west of the British Isles rainfalls of 2·50 in. in one day are of comparatively frequent occurrence, and some idea of their prevalence and distribution can be obtained from the following summary :—

Number of stations with two or more falls of 2·50 in. or more in 1918.

County.	Number of Stations.	Number of Falls.	Station with largest number.	
Lancashire	3	.. 6	Several	2
Cumberland	5	.. 13	Grange	4
Westmorland	13	.. 35	Dungeon Ghyll	6
Merioneth	2	.. 9	Llechwedd Quarries	6
Carnarvon	6	.. 23	Cwm Dyli	8
Argyll	5	.. 12	{ Glen Etive	3
Inverness	3	.. 9	{ Mull, Knock	3
Cork	1	.. 2	Kinlochquoich	5
Mayo	1	.. 3	Inchibeg	2
			Delphi Lodge	3
Total	39	112	Cwm Dyli	8

It is of interest to compare the above with similar details for previous years :—

Year.	Number of Stations.	Number of Falls.	Station with largest number.	
1914.....	55	176	Pen-y-Gwryd	12
1915.....	31	71	„ „	6
1916.....	46	130	Kinlochleven	7
1917.....	23	67	Kinlochquoich	11
1918.....	39	112	Cwm Dyli	8

The daily rainfalls of 1918 add only six entries to the historical lists of daily rainfalls during 55 years first published in *British Rainfall, 1910*, and brought up to date in each subsequent volume. Of these, four call for no special comment, being rainfalls of no very great significance in Snowdonia and the West Highlands. The remaining two are of interest as the first daily rainfalls exceeding 4 inches hitherto known to have been recorded in the Isle of Man.

Div.	County.	Station.	Date.	Rainfall.
XI.	CARNARVON	Beddgelert (Council School)	Sept. 15th, 1918	4·90
„	„	Snowdon, Cwm Dyli	Sept. 15th, 1918	4·84
„	I. OF MAN	Douglas, Clype Reservoir.	Sept. 15th, 1918	4·95
„	„	Douglas Cemetery	Sept. 15th, 1918	4·68
„	INVERNESS	Kinlochquoich	Feb. 23rd, 1918	4·10
„	„	Kinlochquoich	Nov. 7th, 1918	4·03

Part I.—The Chronicle.

January 7th.

Severe snow storms occurred in the north and north-east of Scotland, interfering considerably with railway communication.

January 15th.

A barometric depression crossed the north of Scotland during this day and was accompanied by northerly and north-westerly winds over the British Isles generally. Considerable falls of rain, sleet and snow fell widely, the amounts reaching 2·00 in., or more, in part of the south of England. In the Fen District snow lay 8 inches deep, and in the mountains of Wales great numbers of sheep were reported to have been lost owing to the deep drifts. On parts of the Sussex coast damage by flooding was aggravated by an exceptionally high tide.

III. (ENG. S. Mid.).	in.	or	%	III. (ENG. S. Mid.).	in.	or	%
Bodicote Vicarage	1·90		7·6	Gretton (Gretton House)	1·85		7·7

January 18th–20th.

Although no individual rainfalls of great note were reported, widespread orographical rains occurred in the west of Great Britain.

January 19th.

XV. (SCOT., W. MID.). Glen Finlas Reservoir ... 3·30 in. or 3·7 per cent.

February 6th.

The passage of low pressure systems to the north brought south-westerly winds over the country generally with widespread and long continued rains of the winter type. The amounts recorded were heaviest in the Pennines and the uplands of Wales.

IX. (YORKS).	<i>in.</i>	or	%	IX. (YORKS).	<i>in.</i>	or	%
Holmbridge (Yateholme R.)	2·72		3·7	Soyland Moor (Baitings Gate)	2·57		4·1
Holmbridge (Yateholme F.)	2·65		3·7				

February 18th.

XXIII. (ULSTER). Mourne Mountains (Foffany Res.) 2·69 in. or 3·8 per cent.

February 21st.

Another winter rainfall in the normally rainy districts of Great Britain, occurring, as is usual, with barometric conditions suitable for strong westerly winds. More than 4 inches fell at two Lake District stations, but the amounts recorded can only be regarded as moderate.

X. (ENG., N.).	<i>in.</i>	or	%	XV. (SCOT., W. MID.).	<i>in.</i>	or	%
Borrowdale (Seathwaite) ..	4·45		3·2	Duchray Valley (Comer)...	2·60		2·6
Ambleside (Gale House) ..	2·91		3·2				
Rydal (The Stepping Stones)	3·02		3·1	XVI. (SCOT., E. MID.).			
Rydal (High Close)	3·50		3·5	Loch Dhu	2·55		3·0
Dungeon Ghyll	4·47		3·5	Killin (The Manse)	2·58		4·1
Grasmere (The Wray)	3·75		3·4				

February 23rd.

XVIII. (SCOT., N.W.).	<i>in.</i>	or	%	XVIII. (SCOT., N.W.).	<i>in.</i>	or	%
Loch Quoich (Kinlochquoich)	4·10		2·8	Loch Quoich (Glenquoich)	3·10		2·5

April 15th.

Rain and some snow fell over the east and south-east of England and one or two stations in East Anglia had a fall just reaching the minimum for quotation.

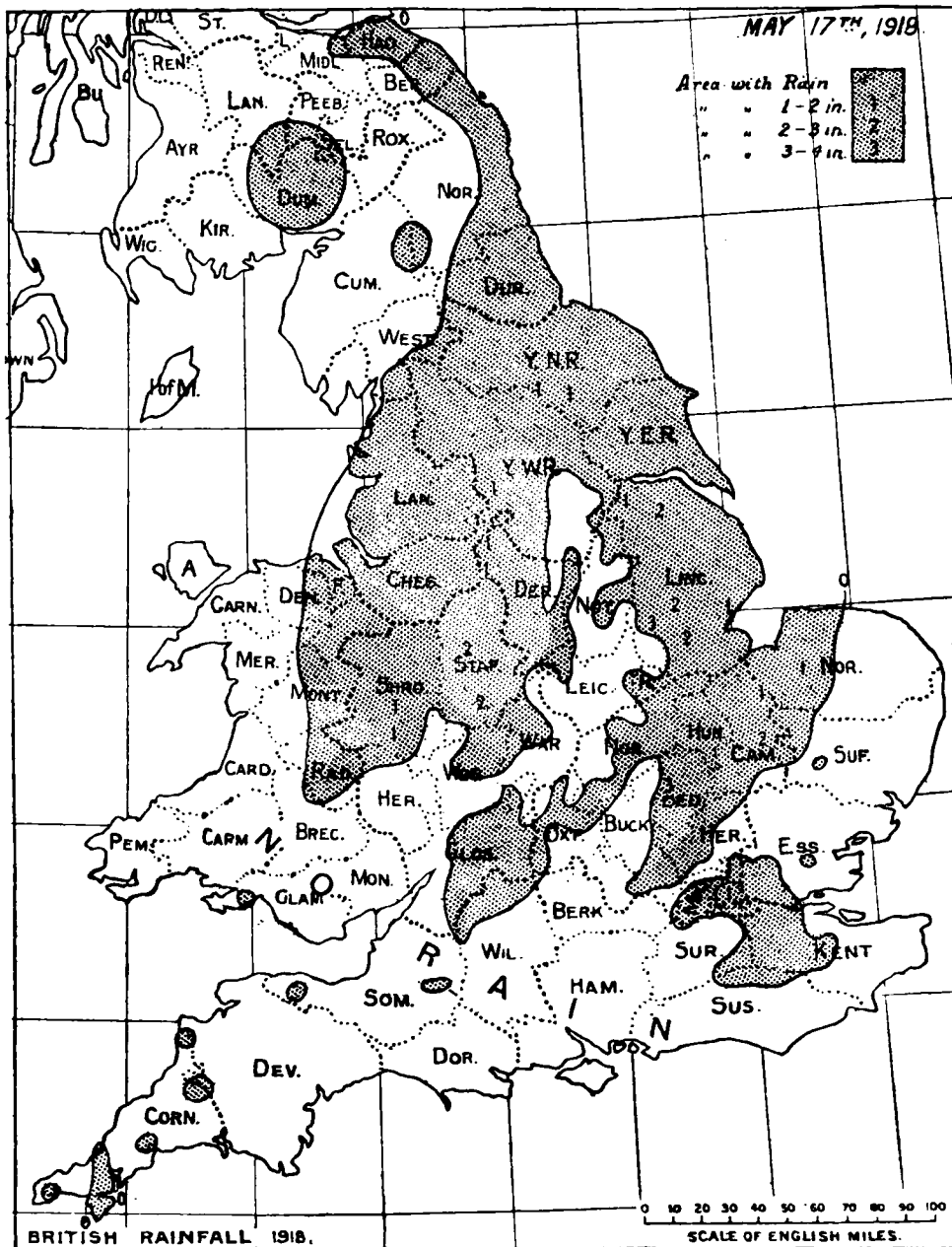
III. (ENG. S. MID.).	<i>in.</i>	or	%	IV. (ENG., E.).	<i>in.</i>	or	%
Abington Piggotts	1·65		7·8	Moulton	1·75		7·7
Whittlesford (Sawston Hall)	1·85		7·6				

May 17th.

Highly localized thunderstorms, in some cases of unusual severity, occurred in parts of the English Midlands. The rainfall reached 2·00 in. at Stafford; near Wolverhampton; at Brigg in north Lincolnshire, and over a considerable area in the south of Lincolnshire. The most remarkable centre of activity however appears to have been between Woburn and Ampthill. We are indebted to Mr. Alfred Latchmore for kindly undertaking to collect and verify the principal facts, and his account conveys these so much more vividly than we could hope to do that we gladly take advantage of his permission to print it in full. It is extremely unfortunate that no rain gauges were in existence in the central core of the storm, though Mr. Kilby's record of 3·07 in. in 2 hours 30 min., at Milton Bryant on its southern outskirts, and Mr. Wright's measurement of 3·25 in. in 3 hours at Liddington, immediately to the north, give a hint of an enormous rainfall near Eversholt, which suffered even more severely than the places mentioned.

“The thunderstorm in Mid-Bedfordshire was of unusual severity and was accompanied by a violent downpour of rain and hail. Until noon (G.M.T.) the sky had been cloudless, but after that hour thunderclouds rapidly formed and a storm of a minor character occurred about 2.45 p.m. This was followed by a very severe storm which lasted in general from 3 to 6 p.m. (G.M.T.), the greatest intensity occurring between 3.45 and 4.15 p.m. The centre of the storm occupied an area of approximately six miles from N. to S., and three miles E. to W., lying immediately to the east of Woburn Park. Unfortunately there are no rain gauges in this area. At Milton Bryant, which lies to the S.S.E. of Woburn Park, Mr. C. J. Kilby recorded 3·07 inches and says ‘the rain at the Church End (north) of the village was very much heavier than where I live (south end).’ At Woburn Abbey the noise of the falling hail and rain was so great that for about ten minutes it almost drowned the thunder. The wall of Woburn Park, a very substantial erection, 12 ft. to 15 ft. high, was breached at Linden for a length of nearly one hundred yards, and ‘masses of masonry nearly a ton in weight were washed across the recreation ground like toys.’ The park wall was also breached in two places, near Foxfield, and the bricks carried down the road for a quarter of a mile. The damage to the roads was enormous, and in Tingrith and Eversholt, they were completely destroyed. The water in the valleys rose above the tops of the hedges. Near Eversholt walls were laid flat, haystacks washed across the fields and sheep and poultry drowned. Near Tingrith a horse and cart were washed over the hedge into the meadow at a point where the depth must have been fully 8 to 10 feet. The driver was drowned and it was ten days later before his body was discovered buried under three feet of gravel. The bridge at Flitwick carrying the highroad from Ampthill to Dunstable was so badly damaged that it had to be rebuilt. At Steppingly the rain was very heavy and here the road was in places washed out to a depth of 2½ ft., although the village lies high and did not suffer from flood water from other localities. Great damage was done here to gardens and allotments, the top soil being completely washed away from the high ground, burying the lower gardens beneath eighteen inches of drift. The heavy rain scarcely extended north of the high ground stretching N.E. from Woburn, except at Liddington, where the road was badly torn up. The rain which fell at this spot caused heavy flooding at Elstow of

RAINFALL, MAY 17TH, 1918.



the stream which joins the Ouse below Bedford. N.W. and S.W. of Woburn Park little rain fell, Crawley recording .23 in., Woburn Sands very little, Newport Pagnell none, and Stockgrove .25 in. The rain was heavier to the east, Higham Bury .91 in., Shefford .80 in., .92 in. and 1 in., but S.E. of the latter place the fall was light. At Stondon .40 in. fell, at Shillington .47 in., and at Hitchin .26 in. Sandy recorded 1.23 in., but this was a distinct and later storm. The floods were chiefly in the valleys of the Flit, a tributary of the Ivel, and the Ouzel, which flows through Leighton Buzzard

and joins the Ouse at Newport Pagnell. All accounts agree that there have been no such floods at least since the memorable storm of August 2nd, 1879*. At Shefford the water rose very rapidly during the night of the 17th and early on the 18th was about three feet deep in the main streets of the town. A great deal of damage was done here, walls being washed down, gardens destroyed and furniture and goods ruined. The flood subsided very quickly, and had almost completely abated by the afternoon of the 18th. At Hockliffe the floods were severe and at Leighton were the worst ever known : at Newport Pagnell they are described as being serious.

"The hail was very heavy in the central area and is generally described as being as large as walnuts, or pigeon's eggs. It was washed up in places into drifts of three feet in depth and some remained against the north wall of Milton Bryant church until May 20th, although the weather remained very warm.

"It is difficult to estimate how much rain fell in the central area, but from a careful inspection of the whole of the district I am convinced that the Milton Bryant record of 3·07 in. is much less than that which fell over a limited area on the eastern confines of Woburn Park ; possibly as much as 5 or even 6 inches would not be an unduly high estimate.

"I have to thank the numerous Observers in the district for their readiness to supply many of the above details. ALFRED LATCHMORE."

A disastrous, though probably less severe, thunderstorm occurred in southern Lincolnshire, on the evening of the same day, and in the district between Billingborough and Bourne immense damage was done to the young crops. Roads were torn up and the railway between Rippingale and Millthorpe was so badly damaged that it was necessary to cancel part of the train service on the following day. The service between Bourne and Sleaford was also suspended. At Aslackby a child was drowned in the flood water.

The heaviest rainfall was too local for the distribution to be shown in detail in a map, but it is indicated diagrammatically in the sketch given. It will be seen that the area with rain occupied approximately the centre and north-east of England. Over the greater part of this district, however, the fall was trifling, and the areas with as much as 1 inch, indicated by the figure 1, were in every case too small to be outlined on such a small scale. The same remark applies even more forcibly to the areas of 2 and 3 inches, shown by the figures 2 and 3 respectively. The abruptness of the falling off of the rainfall in the neighbourhood of these intense storms is indicated by the fact that whilst 3·25 in. was recorded at Lidlington, near Ampthill, no rain fell at Salford, less than 4 miles west, and only ·23 in. at Crawley about 2½ miles south-west. A similar phenomenon was observed at Wednesbury, and in the north and south of Lincolnshire, and was undoubtedly one of the characteristics of the storms in all parts of the country.

* See *British Rainfall*, 1879, p. [13] and [100]-[102].

III. (ENG., S. MID.).	<i>in.</i>	or	%	VII. (ENG., N. MID.).	<i>in.</i>	or	%
Woburn (Milton Bryant) ..	3·07		10·2	Carlton Scroop	2·96		11·2
Lidlington (White Lodge)	3·25		11·5	Fulbeck Hall	2·93		10·7
Streatham (Orchard House)	2·02		7·8	Cranwell	2·01		9·1
VI. (ENG., W. MID.)				Digby Manor	2·79		12·7
Wednesbury (Ocker Hill) .	2·28		7·6	Brigg (Grammar School)...	2·13		8·4
Stafford (Rising Brook) ...	2·27		7·5	Brigg	2·36		8·6

May 21st—22nd.

Widely scattered, but, for the most part, very local, thunderstorms occurred during these two days. Those of the 21st, which were more notable for electrical manifestations than for heavy rain, took place principally in the north Midlands. That on the 22nd brought heavy rainfall in central Shropshire. Considerable damage by lightning was reported from Leominster.

May 22nd.

VI. (ENG., W. MID.).	<i>in.</i>	or	%	VI. (ENG., W. MID.).	<i>in.</i>	or	%
Dorrington (Netley Hall) .	2·58		8·4	Shifnal (National Schools) .	2·65		9·1
Worfield Schoolhouse	2·54		9·0	Newport (Agricultural Col.)	2·00		7·8
Shifnal (Hatton Grange)...	2·21		7·6	Newport (Edgmond)	2·08		7·6

May 23rd.

XI. (WALES.).	<i>in.</i>	or	%	XI. (WALES.).	<i>in.</i>	or	%
Birmingham WW (Claerwen)	2·60		3·3	Lake Eigiau (Dam Site) .	3·00		3·0
Pennal (Talgarth Hall) ...	2·80		4·2				

July 11th.

One of the few cyclonic rains of the year brought more than 2·00 in. to a few stations in Surrey.

II. (ENG., S.E.).	<i>in.</i>	or	%	II. (ENG., S.E.).	<i>in.</i>	or	%
Cobham (Hatchford Park) .	2·76		7·1	Wimbledon (Raynes Park).	2·14		7·5

July 16th.

Between 2 and 2.30 a.m. (G.M.T.) on this day a hail-storm of a remarkable nature took place in east Surrey. The amounts of precipitation measured in no case reached the limit for quotation, but the totals of ·80 in. in ten minutes, and 1·10 in. in eleven minutes, measured at two stations in Purley, were unusually intense. The storm appears to have affected, at any rate destructively, only a ribbon-like tract from half a mile to a mile wide, stretching from near Leith Hill, a mile west of Holmwood railway station, to North Bromley, a distance of 22 miles, passing through Betchworth, Buckland, Chipstead and Purley. Whilst the final

traces of hail were at Bromley, the rainfalls of $\cdot 85$ in. at Eltham, and $\cdot 57$ in at Plumstead, indicate an extension to the north-east. There was an even more striking recrudescence near Belhus and Billericay, in mid-Essex, with some damage by hail and about an inch of rain ; falls of $\cdot 55$ in. at Colchester, and $\cdot 22$ in. at Woodbridge, point to a still more extended strip, the whole being practically straight. The severest conditions, where the hail was undoubtedly of a highly unusual character for this country, were along the south-eastern margin of the strip, beyond the sharply defined edge of which no hail and little rain fell. On the north-west side the falling off was gradual. No unusual phenomena occurred on the south-western prolongation of the line, though sharp rain fell at an earlier hour in the Lindfield district.

From end to end of the main area from Holmwood to Bromley, the storm began at full violence, and stopped as sharply, lasting in the zone of destruction only some ten to fifteen minutes. The rate of progression was from 40 to 45 miles per hour, the time of commencement being 1.55 a.m., at Holmwood, 2 a.m., at Betchworth, 2.8 a.m., at Cheasley, and from 2.15 to 2.20 a.m. at Purley and Sanderstead. The wind velocity was however small, damage to closed windows being confined to a few areas on the south-eastern margin of the strip. The district affected being densely populated and intensely cultivated, great damage to property, especially glass and growing crops, resulted, the cost to the former being estimated at £2,000, and to the latter at even more. The chief centres of destruction were Buckland, Coulsdon (particularly Cane Hill Asylum, where glass and crops were destroyed to the value of over £1,000), Purley and Sanderstead.

A curious feature of the storm was the unusual and irregular shape of many of the hailstones, some of which were measured as $2\frac{1}{2}$ in. by 2 in. by $1\frac{1}{2}$ in. at Purley, whereas at Cane Hill they were probably larger. These were lumps of hard clear ice, with opaque lenticular cores, and marked by a number of protuberances about an inch long and a quarter of an inch thick, clearly part of the original stone.

We are indebted to Mr. J. Edmund Clark, of Purley, for an extremely interesting and valuable description of the principal facts in connection with the storm, from which the above account is almost entirely taken.

* For fuller details of this storm see *Symons's Meteorological Magazine*, August, 1918, pp. 73-75.

A typical summer thunderstorm, the principal locus of which was in the south-east of England, occurred in the late afternoon of this day. The chief interest centres in the distribution of rainfall, the general outline of which is given in the map reproduced below. Coincident with the

JULY 17TH 1918

0 10 20 30 40 50 60 70
SCALE OF ENGLISH MILES

WIG. KIR. DUR. Y.N.R. LAN. Y.W.R. A. DEN. MER. MONT. SHRO. LEIC. WAR. NOR. CAM. HERT. GLOS. MON. CARM. RAD. CARD. DEV. CORN. SOM. DOR. SUS. KENT

SCALE OF TINTS.

2 1 .5 in.

BRITISH RAINFALL 1918

* See also *Symons's Meteorological Magazine*, August, 1918, pp. 76-77.

by over-reduction, the northern part of Great Britain is omitted from the map. In England more than an inch of rain fell in several well-defined parallel bands lying in a direction from south-west to north-east. The best marked of these stretched from Winchester to Sutton-on-Sea, a distance of about 175 miles, the width nowhere exceeding about 12 miles. A somewhat wider band stretched from Cromer to Dorking. It was within this belt that the rainfall was most intense, the principal centres being from Bury St. Edmunds southwards, and the east of London. At Hawkedon, where 2·53 in. of rain fell, Rev. B. P. Oakes estimates that more than 2·00 in. fell within an hour, from 7 to 8 p.m. (G.M.T.). In the London area 1·34 in. fell in 40 minutes, from 5.55 to 6.35 p.m., at Old Ford, and 1·35 in. in 35 minutes, from 5.45 to 6.20 p.m., at Clapton. A third, but in this case interrupted, belt of heavy rain, occurred still further to the east, between Lowestoft and Brighton, and similar discontinuous strips lay to the north-west with patches of heavy rain at (i.) Plymouth, Clevedon, Tenbury, Penkridge, Rotherham, Selby and Scarborough; (ii.) Swansea, Liverpool, Sedbergh and Wearhead, and (iii.) Haverfordwest, Llanberis and Windermere. It is difficult to assert positively the alignment of strips (ii.) and (iii.), though (i.) was unmistakable in its tendency to splashes of heavy rain arranged in this manner. The fall exceeded 2·00 in. in small areas in Staffordshire and in the East Riding of Yorkshire.

I. (LONDON).			IV. (ENG., E.).		
	<i>in.</i>	or %		<i>in.</i>	or %
Shad Thames Pump. Stn.	2·32	7·8	Hawkedon Rectory	2·53	8·5
III. (ENG., S. MID.).			VI. (ENG., W. MID.).		
Whittlesea Mere	1·49	7·8	Penkridge (Rodbaston)	2·55	8·2
Parson Drove (Clows Cross)	1·68	7·7			

July 20th.

The last of the series of thunderstorms which characterized the third week of July brought highly localized splashes of heavy rainfall in the Midlands and north of England. By what was probably a coincidence, though it may have been more, a small depression forming over the North Sea brought more than an inch of rain on the east coast of Scotland, very nearly in the same way as on July 17th. A similar belt with more than 1 inch occurred in the south-east of England, stretching from Cromer to Eastbourne. The rain in this strip appears to have been of a thunderstorm type, and the Observer at Beachy Head reported a line-squall at 9.30 a.m. (G.M.T.) with thunderstorms from 9.30 to 11 a.m., and 1 to 2 p.m. Heavy rain fell in a number of patches in England, situated in a

manner strongly suggestive of the linear arrangement which is so frequent with storms of this nature. The lines stretched nearly north and south, and were parallel to the south-eastern strip, but they were in every case interrupted by nearly rainless areas.

The points at which the rain reached the most remarkable intensity were near Worksop, Bradford and Pateley Bridge. At Worksop, 1·79 in. of rain fell between 6.2 and 7.30 p.m. (G.M.T.), and at Woodsetts Grange, about 4 miles north-west the total recorded during the day reached 3·30 in. In the Bradford district and westward to near Todmorden and Keighley, the storm appears to have been of very exceptional violence, lasting about an hour. Extensive damage was done to the railway track near Walsden and to the roads in the district.

II. (ENG., S.E.).			VII. (ENG., N. MID.).		
	<i>in.</i>	or %		<i>in.</i>	or %
Birchington (Hollydene) ..	1·80	7·9	Worksop (Gateford Hill) .	2·50	10·9
Birchington (Rose Bank) .	1·80	7·8	IX. (YORKS.)		
Birchington (Fernleigh) ...	1·78	7·8	Woodsetts Grange (Old Vic.)	3·36	12·3
VII. (ENG., N. MID.).			Bradford (Chellow Heights R.)	2·93	6·8
Worksop (Carlton Road) ..	2·08	8·4	Ramskill	2·66	6·4

July 22nd.

The south-western uplands of England lay on the southern flank of a large shallow depression which moved slowly eastward during this day, and more than 2·00 in. fell at a few stations in Devonshire, Cornwall and South Wales.

V. (ENG., S.W.).			XI. (WALES).		
	<i>in.</i>	or %		<i>in.</i>	or %
Sheepstor Vicarage	2·50	3·4	Pontardawe (Plas Cilybebyll)	2·95	4·0

August 2nd.

With a depression moving south-eastward and over southern England rain was general, but not extremely heavy. One station in Staffordshire reached the limit for quotation.

VI. (ENG., W. MID.). Little Ingestre.....	2·65 in. or 8·8 per cent.
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August 19th.

XVIII. (Scot., N.W.). Loch Quoich (Kinlochquoich)	2·90 in. or 2·0 per cent.
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August 22nd.

XIX. (Scot., N.). Westray (Noup Head)	2·45 in. or 8·3 per cent.
---	---------------------------

August 25th.

"An extraordinary phenomenon occurred at Sunderland during the week-end. A heavy thunderstorm passed over the Hendon district, and there was a very sharp fall of rain. After the storm had ended it was found that it had rained fish, for, over an area of more than a hundred square yards, thousands of little fish were lying. The place where these fish were deposited was about half a mile inland. All the fish were dead, and were of the kind locally known as 'sile.' In shape they are eel-like, and vary in length from two to three inches."—*Newcastle Daily Journal*.

September 10th.

On the left of the track of a passing depression a few stations in north-east Aberdeenshire experienced heavy rain with wind backing from east to north.

XVII. (Scot., N.E.).				XVII. (Scot., N.E.).			
	<i>in.</i>	or	%		<i>in.</i>	or	%
Brucklay Castle	2.55		6.6	Kinnaird Head	1.80		7.6

September 11th.

The rainfall of this day which reached 2.00 in. only in the immediate neighbourhood of Bristol was apparently associated with a secondary barometric system in the rear of the primary depression of the previous day.

September 15th.

A nearly stationary low-pressure system which became deeper during the day, with a slight movement north-eastward, brought variable southerly winds over southern districts and an easterly wind in the north. Rainfall was exceptionally widespread, only the extreme north-west of Scotland and south-east of England escaping. Over the whole of the north-west of Scotland and the Midlands and south of England the fall was not heavy, the lines limiting the area with more than .50 in. extending from Achill Island in the west of Co. Mayo, to near Aberdeen on the north, and from the mouth of the Shannon to Spurn Head on the south. Whilst in its broader features the distribution of rainfall was undoubtedly primarily of the cyclonic type the influence of the land configuration was apparent, and the outlines of the areas with more than one inch are suggestive of orographical rainfall. It is probable that the two types gradually merge into one another, and that the case under review was intermediate between the two. Apart from scattered patches in the uplands of southern Ireland and central Scotland the 1-inch area was mainly confined to the west and north of Ireland, the south and south-east of Scotland and the northern parts of England and of Wales. More

than 2 inches fell over a part of the Antrim Hills, the Isle of Man, the English Lake District and part of the Pennines, and in the north-west

11 10 9 8 7 6 5 4 3 2 1 0

SEPTEMBER 15th 1918

SCALE OF TINTS.

4 3 2 1 0 in.

0 10 20 30 40 50 60 70 80 90 100

SCALE OF ENGLISH MILES

BRITISH RAINFALL 1918.

of Wales, but the fall did not reach 3 inches except in the east of the Isle of Man, a small part of the Lakes area and in Carnarvonshire. The rainfall appears to have reached its maximum round Douglas, where two stations give totals approaching 5 inches, and over Snowdonia, where similar readings were recorded at Cwm Dyli and Beddgelert. At Llyn Llydaw, where it

was unfortunately impossible to obtain records for the day apart from the two preceding days, it is clear that the fall was considerably greater, and the following measurements suggest that it exceeded 6 inches or even approached 7 inches.

1918.	Cwm Dyli		Llyn Llydaw Intake.	Copper Mill.
	in.	in.	in.	in.
September 13th	·79	6·23	8·69	8·94
„ 14th	·60			
„ 15th	4·84			

Such rainfalls though sufficiently remarkable are probably less rare in the immediate neighbourhood of Snowdon than are the more moderate readings in the Isle of Man for that locality, and it is interesting to note that the measurements at the two stations at Douglas quoted below are the first example of 4 inch rainfalls in 24 hours yet known to have occurred in the Isle of Man.

The area of the portions of the British Isles with more than an inch of rain are given below. The measurement, of course, excludes the sea, although it is fairly evident that a large part of the Irish Sea must have been included within the main 1-inch area.

	Area, sq. miles.	General Rainfall inches.	Volume of Rain sq. miles × inches.
More than 4 inches	141	4·62	651
3—4 inches	618	3·28	2,025
2—3 „	4,940	2·35	11,589
1—2 „	29,692	1·31	38,958
Total more than 1 inch	35,391		53,223

The general rainfall of the area with more than 1 inch of rain was 1·50 in., corresponding to 770,635 million gallons.

VIII. (ENG., N.W.).	in.	or	%	IX. (YORKS).	in	or	%
Barrow-in-Furness(Sew Wks)	2·70		5·5	Standedge(CasShawCudw'th)	2·55		6·4
Urswick Schoolhouse	2·74		4·8	Lunedale (Grassholme Res.)	2·83		6·3
Ulpha	2·76		3·3	X. (ENG., N.).			
Bardsea School.....	3·01		4·9	Wearhead Station	2·55		5·3
Cartmel (Carke)	2·66		4·9	Bardon Mill (Allans Green)	2·29		8·0
Cartmel (Holker Hall) ...	2·74		4·7	Morpeth(BothalhaughGdn.)	2·13		8·4
Ulverston (Poaka Beck) ...	2·54		4·1	Morpeth (Ashington)	2·20		9·2
Rusland Hall	3·30		5·6	Morpeth (Cockle Park) ...	2·27		8·5
Greenodd (Pennybridge Sc.)	3·12		4·0	Acklington (Broomhill Coll.)	2·10		8·7
Coniston (Water Park) ..	3·40		4·8	Felton(Newton-on-the-Moor)	2·33		8·4
Hawskh'd(TowerBk.,Sawrey)	3·35		4·0	Alnwick Castle	2·32		7·9
Hawskhead (Esthwaite L.).	3·36		3·8	Beal (Lowlynn)	2·40		10·3
Skelwith Fold (Ambleside)	3·20		3·2	Ilderton (Lilburn Tower) ..	1·73		8·2
Grange-over-Sands(EdenMt.)	3·03		6·5	Wooler (Victoria House)...	2·12		10·2
Grange-over-Sands(Nutwood)	2·52		4·5	Doddington Vicarage	2·10		8·1
Cartmel Fell (Schoolhouse)	2·95		4·3	Pawston	2·15		7·9

X. (ENG., N.— <i>con.</i>)			X. (ENG., N.— <i>con.</i>)		
	<i>in.</i>	or %		<i>in.</i>	or %
Uldale (Chapel House Res.)	2.60	5.1	Rydal.....	3.09	3.2
Mealsgate (Quarry Hill) ...	2.88	6.9	Kendal (Crosthwaite Vic.) .	2.90	4.2
Wreay Vicarage	2.67	7.0	Kentmere.....	3.18	3.5
Keswick (Crosthwaite Sch.)	2.54	3.9	Orton	2.55	3.7
Cockermouth (Derwent Ldge.)	2.54	5.9	XI. (WALES and the ISLANDS.)		
Threlkeld (Blencathra San).	2.73	3.9	Tan-y-bwlch The Gdns.)...	2.98	3.8
Bassenthwaite (Higham) ..	2.97	5.8	Tay-y-bwlch (Dol-y-Moch) .	2.57	3.2
Whitehaven (Scragill Res.)	3.37	6.7	Abersoch	2.65	5.1
Whitehaven (Irish Street) .	3.23	6.4	Beddgelert (Council School)	4.90	4.2
Distington (Gilgarran).....	2.85	5.7	Snowdon (Cwm Dyli)	4.84	3.6
Workington (Winscales Ho.)	2.55	6.0	Dwyran (Menaifron)	3.08	7.6
Silecroft (Old Chappels) ...	3.19	5.0	Plas Newydd Gardens.....	3.00	5.9
Alston (Nenthead)	2.74	4.2	Llangefni	2.60	6.0
Alston (Samuel King's Sch.)	2.73	6.7	Llangefni (Penrhos)	2.83	6.1
Bowness (Lindeth Howe) ..	3.00	3.8	Llangwilog (Trescawen) ...	2.75	5.5
Bowness (Dawstone)	3.05	4.2	Llwydiarth Esgob	2.66	6.0
Windermere (Hammar Bank)	3.06	4.0	Douglas (Borough Cemetery)	4.68	9.2
Bowness (Fellside)	3.10	3.9	Douglas (Clypse Rs. Onchan)	4.95	9.2
Windermere (Holehird)....	2.84	3.4	Maughold Head	2.85	6.0
Windermere (Brockhole) ..	3.00	3.7	XII. (SCOT., S.).		
Ambleside (Wansfell)	3.02	3.4	Kelso (Springwood Park) .	1.81	8.0
Ambleside (White Craggs)..	2.85	3.2	Kelso (Broomlands).....	1.72	7.7
Ambleside (Loughrigg Brow)	2.86	3.0	XXIII. (ULSTER).		
Ambleside (Lesketh Howe)	3.01	3.2	Lisburn (Ulster Prov. Schl.)	2.60	4.8

September 18th.

III. (ENG., S. MID.). Hoddesden (Feilde's Weir).. 2.06 in. or 7.7 per cent.

September 21st.

XI. (WALES). Llandwrog (Bronyfeol School) 2.70 in. or 3.3 per cent.

September 29th.

A small but deep depression passing across southern England brought strong wind and heavy rain, but the amount appears to have reached 2.00 inches only near Cheltenham and at Dorchester.

VI. (ENG., W. MID.).	<i>in.</i>	or %	VI. (ENG., W. MID.).	<i>in.</i>	or %
Cheltenham (Hewletts Res.)	2.09	7.8	Bredon (The Croft)	1.80	7.6

October 2nd—5th.

Low pressure over Iceland and high barometer over the mainland of Europe were again associated with strong south-westerly winds over the British Isles. Heavy rain fell on the exposed western coasts on the 2nd and spread more to the eastward on the 3rd, when more than 2.00 in., fell widely in the English Lake District and the Snowdon area. The two following days were also extremely rainy in these districts.

October 2nd.

XXII. (LEINSTER). Delphi Lodge 2·78 in. or 2·5 per cent.

October 3rd.

VIII. (ENG., N.W.).	<i>in.</i>	<i>or</i>	<i>%</i>	X. (ENG., N.).	<i>in.</i>	<i>or</i>	<i>%</i>
Seathwaite Vicarage	2·68		3·2	Cockermouth (Lorton Hall)	3·10		5·3
X. (ENG., N.).				Cockermouth (Brandlingill)	3·50		4·8
Cockermouth Whinfell Hall)	3·10		5·0	Swindale (Mosedale Cottage)	2·50		..

October 5th.

XX. (MUNSTER). Ballingeary (Inchibeg) 3·07 in. or .. per cent.

October 9th.

A repetition of the conditions prevailing in the preceding week brought heavy rain in the west, on this occasion more to the north, affecting principally the West Highlands.

XI. (WALES).	<i>in.</i>	<i>or</i>	<i>%</i>	XV. (Scot., W. Mid.).	<i>in.</i>	<i>or</i>	<i>%</i>
BlaenauFestiniog(OakleyQ.)	3·55		2·5	Corran Lighthouse.....	2·90		3·1
„ „ (Llechwedd Q.)	3·50		2·7	Glen Etive.....	3·09		3·1
XV. (Scot., W. Mid.).				XVIII. (Scot., N.W.).			
Ardgour House.....	3·31		3·1	LochArkaig(Achnacarry) ..	3·37		3·7
Glenleven(BlackwaterDamS)	2·82		3·0	Fort William(Atholl Bank)	2·89		3·7

November 1st.

XX. (MUNSTER). Portlaw (Curraghmore Gardens) 2·62 in. or 5·6 per cent.

November 4th.

After September 15th this was probably the most widespread of the heavy rains of the year. The conditions were again favourable for westerly winds and the heaviest rain occurred in the hilly regions of Dartmoor, South Wales and the south and south-west of Scotland. In all these regions more than 2 inches fell fairly widely, but the total does not appear anywhere to have reached 3 inches.

V. (ENG., S.W.).	<i>in.</i>	<i>or</i>	<i>%</i>	XI (WALES).	<i>in.</i>	<i>or</i>	<i>%</i>
Holne (Church ParkCottage)	2·83		4·2	RhonddaWW.(LlynFawrR.)	2·65		2·7
XI. (WALES).				XII. (Scot., S.).			
Treherbert(UnitedNatColl.)	2·69		2·8	Moniaive (Jarbruck)	2·83		4·4
Treherbert (Tyn-y-waun) .	2·68		2·7	XV. (Scot., W. Mid.).			
Pont Lluest Wen Res.,No. 3	2·67		3·0	Campbeltown (South Park)	2·85		4·5
Pont Lluest Wen Res.,No. 1	2·51		2·6				

November 7th.

Orographic rainfall in the West Highlands.

XV. (Scot., W. Mid.).	in.	or	%	XV. (Scot., W. Mid.).	in.	or	%
Morven (Ardtornish)	2·69		3·2	Mull (Gruline)	3·22		3·5
Mull (Ulva)	2·69		3·9	XVIII. (Scot., N.W.).			
Mull (Knock)	3·65		3·5	Loch Arkaig (Glendessary). .	2·60		2·0

December 2nd.

XI. (WALES). Swansea W.W. (Bwlch) 2·61 in. or 2·3 per cent.

Part II.—Abstract.

As will readily be inferred from a perusal of the foregoing Chronicle by those who are familiar with this section of *British Rainfall* in past years, the heavy daily rainfalls of 1918 can be described as remarkable only from one point of view, *viz.*, their singular lack of variety. By far the greater part of the records which reached the limits for quotation were of the commonplace winter rains of the normally rainy districts, and most of entries in Table I., which gives the 20 largest daily readings reported during the year, refer to rains of this type. In Table I., it should be noted only one fall is quoted from any one station, otherwise no fewer than four falls of sufficient magnitude to find a place would appear for the single Lake District station at Dungeon Ghyll, and more than one from several others.

Table II. gives similar data with regard to the highest maximum percentage of the annual fall, thus bringing into prominence such heavy rains as occurred in places of normally small rainfall. The percentage values are lower than usual, and the few local thunderstorms of the year provide the only outstandingly large figures. Besides the thunderstorm rains seven entries refer to the semi-orographical rain of September 15th. They are all from stations either in Northumberland or the Isle of Man.

Table III., which compares the highest values noted in 1918 with previous years, indicates that both the actual and percentage amounts were very moderate, though not extraordinarily small.

Table IV. sums up statistically the prevalence of days of high rainfall in 1918 in comparison with the three preceding years. It emphasizes the relative infrequency of wet days for the country generally, the numbers under each heading, with trifling exceptions being the smallest observed during the four years for which comparable statistics are available. Very

TABLE I.—*The Largest Daily Rainfalls in 1918.*

Date.	Div.	Station.	Depth.	Per Cent.	Total.
			in.		in.
Sept. 15	XI.	Douglas, Clypse Res., Onchan ...	4·95	9·2	53·68
" "	"	Beddgelert Council School	4·90	4·2	117·46
" "	"	Snowdon, Cwm Dyli	4·84	3·6	134·35
" "	"	Douglas, Borough Cemetery	4·68	9·2	50·71
Feb. 21	X.	Dungeon Ghyll	4·47	3·5	128·66
" "	"	Borrowdale, Seathwaite	4·45	3·2	138·98
Oct. 4	"	" Grange	4·25	4·2	100·82
Feb. 23	XVIII.	Loch Quoich, Kinlochquoich.....	4·10	2·8	145·92
" 21	X.	Grasmere, The Wray	3·75	3·4	109·02
Nov. 7	XV.	Mull, Knock	3·65	3·5	105·56
Oct. 9	XI.	Blaenau Festiniog, Oakley Qrs. ...	3·55	2·5	142·65
" 3	X.	Cockermouth, Brandlingill	3·50	4·8	72·15
Feb. 21	"	Rydal, High Close.....	3·50	3·5	100·07
Oct. 9	XI.	Blaenau Festiniog, Llechwedd Qrs.	3·50	2·7	130·51
Dec. 2	"	Snowdon, Llyn Llydaw Copper Mill	3·49	1·8	194·47
Sept. 15	VIII.	Coniston, Water Park	3·40	4·8	70·05
" "	X.	Whitehaven, Scragill Reservoir .	3·37	6·7	50·25
Oct. 9	XVIII.	Loch Arkaig, Achnacarry	3·37	3·7	90·47
July 20	IX.	Woodsetts Grange, Old Vicarage	3·36	12·3	27·42
Sept. 15	VIII.	Hawkshead, Esthwaite Lodge ..	3·36	3·8	88·91

TABLE II.—*The Largest Daily Percentages in 1918.*

Date.	Div.	Station.	Per Cent.	Depth.	Total.
				in.	in.
July 20	IX.	Woodsetts Grange, Old Vicarage	12·3	3·36	27·42
May 17	VII.	Digby Manor	12·1	2·79	23·16
" "	III.	Lidlington, White Lodge	11·5	3·25	28·26
" "	VII.	Carlton Scroop	11·2	2·96	26·35
July 20	"	Worksoy, Gateford Hill	10·9	2·50	22·96
May 17	"	Fulbeck Hall	10·7	2·93	25·20
Sept. 15	X.	Beal, Lowlynn	10·3	2·40	23·42
May 17	III.	Woburn, Milton Bryant	10·2	3·07	30·12
Sept. 15	X.	Wooler, Victoria House	10·2	2·12	20·77
" "	XI.	Douglas, Clypse Res. Onchan ...	9·2	4·95	53·68
" "	"	" Borough Cemetery	9·2	4·68	50·71
" "	X.	Morpeth, Ashington	9·2	2·20	24·00
May 22	VI.	Shifnal, National Schools.....	9·1	2·65	29·26
" 17	VII.	Cranwell	9·1	2·01	22·17
" 22	VI.	Worfield Schoolhouse	9·0	2·54	28·36
Aug. 2	"	Little Ingestre	8·8	2·65	30·26
Sept. 15	X.	Acklington, Broomhill Colliery ..	8·7	2·10	24·18
May 17	VII.	Brigg	8·6	2·36	27·37
July 17	IV.	Hawkedon Rectory	8·5	2·53	29·69
Sept. 15	X.	Morpeth, Cockle Park	8·5	2·27	26·82

TABLE III.—*Comparison of Maximum Fall and Maximum Percentage with those in previous years.*

Year.	ABSOLUTE HIGHEST RAINFALL.				ABSOLUTE HIGHEST PERCENTAGE.				Year.
	Depth in.	Per cent.	STATION.	Div.	Per cent.	Depth in.	STATION.	Div.	
1865—1869.									
1869	6·07	4·5	Seathwaite ...	10	17·7	4·78	Hartlip	2	1867
					10·0	2·48	Burton	6	1866
1867	4·71	17·7	Hartlip	2	10·0	3·40	Tillydesk	17	1869
1870	6·00	17·1	Tongue	19	17·1	6·00	Tongue	19	1870
1871	4·24	9·6	Melbury	5	11·5	3·62	Warter	9	1871
1872	5·82	3·2	Seathwaite	10	10·0	3·70	Hillington Hall	4	1872
1873	4·20	2·9	"	"	11·8	2·77	Oscott	6	1873
1874	5·32	4·4	Bryn Gwynant	11	11·9	2·50	Welwyn	3	1874
1875	5·33	9·7	Newport W.W.	"	13·2	3·95	Letheringsett	4	1875
1876	4·50	5·5	Foffany	23	8·5	3·70	Craggside	10	1876
1877	4·98	5·3	Skye, Portree ..	18	9·3	3·09	Wellington	6	1877
1878	4·24	8·6	Springfield	11	11·8	3·90	Haverstock Hill ..	1	1878
1879	4·05	4·1	Little Langdale	10	12·3	3·80	Cambridge, Merton V.	3	1879
1880	4·75	3·9	Seathwaite	"	11·7	3·34	Marmont Priory Lock	"	1880
1881	5·42	4·7	Sligachan	18	10·6	3·20	Aboyne Castle .. .	17	1881
1882	4·51	3·0	Seathwaite	10	9·1	2·80	Bothalhaugh	10	1882
1883	5·27	9·0	Glen-na-Smoel	21	12·3	4·31	Skegness	7	1883
1884	6·78	5·0	Seathwaite	10	13·8	2·66	Diss, Thelveton	4	1884
1885	4·62	3·2	"	"	9·6	2·62	Beccles, Ellough....	4	1885
1886	4·20	9·9	Little Bredy ..	5	11·5	4·10	Leeds, Mothley Park	9	1886
1887	4·93	13·0	Galway, Q.Coll.	22	13·0	4·93	Galway, Queen's Coll.	22	1887
1888	5·20	5·4	Wythburn Vic.	10	11·8	3·24	Rothamstead	3	1888
1889	4·45	16·5	North Ockendon	4	16·5	4·45	North Ockendon ..	4	1889
1890	7·29	3·7	Ben Nevis Obs.	18	17·2	3·68	Slough, Lanley	3	1890
1891	6·14	4·2	Seathwaite	10	14·4	4·00	Montrose, Sunnyside	16	1891
1892	5·80	4·5	"	"	15·0	4·27	Flax Bourton	5	1892
1893	4·96	3·5	"	"	16·2	4·48	Cranmer Hall	4	1893
1894	7·74	5·1	Ben Nevis Obs.	18	11·1	3·56	Sidcup	2	1894
1895	4·83	16·1	Mellington Hall	11	16·1	4·83	Mellington Hall	11	1895
1896	4·59	3·7	Seathwaite	10	11·1	2·78	Barkby	7	1896
1897	8·03	5·6	"	"	14·1	2·40	Chatteris Horseway L	3	1897
1898	6·70	18·1	Angerton Hall	"	18·1	6·70	Angerton Hall	10	1898
1899	5·21	5·6	Grange	"	14·6	3·10	Wallingford	2	1899
1900	5·40	11·9	Ilkley, Cherry Bk	9	13·1	4·50	Gilstead Filters	9	1900
1901	5·66	5·7	Dungeon Ghyll	10	17·9	4·24	Maidenhead, The Firs	2	1901
1902	5·92	3·8	Ben Nevis Obs.	18	15·5	3·51	Esher Sewage Works	"	1902
1903	4·78	2·2	"	"	12·8	4·41	Dartford, West Hill H.	"	1903
1904	5·62	6·0	Skelwith Bridge	10	15·8	3·48	Leamington, Binswood Av	6	1904
1905	5·71	14·0	Glen-na-Smoel	21	14·9	3·98	Cofton Vicarage ..	5	1905
1906	6·15	4·7	Seathwaite	10	11·9	2·50	Cambridge, Herschell H.	3	1906
1907	4·86	9·4	Kingsbridge ..	5	12·5	3·40	Lincoln, St. Botolph's	7	1907
1908	4·80	9·9	Treharris	11	16·0	3·45	Great Glemham ..	6	1908
1909	6·46	5·7	Kinlochquoich	18	11·1	3·30	Tidworth H. [Ludgershall]	2	1909
1910	4·51	3·4	Seathwaite	10	13·0	3·93	Wheatley Waterstock	3	1910
1911	7·00	4·7	"	"	14·2	3·25	Haxby, Moorlands	9	1911
1912	7·31	21·3	Brundall	4	22·2	6·67	Norwich Carrow Ho.	4	1912
1913	6·06?	26·0?	Doncaster W.W.	9	26·0?	6·06?	Doncaster Pump'g Stn	9	1913
1914	6·35	4·1	Pen-y-Gwryd ..	11	14·8	3·35	Upminster	4	1914
1915	7·06	19·7	Dalcross	18	19·7	7·06	Dalcross	18	1915
1916	8·20	5·7	Kinlochquoich	18	13·1	3·91	Portland Bill	5	1916
1917	9·56	..	Bruton	5	21·8	8·39	Aisholt	5	1917
1918	4·95	9·2	Douglas	11	12·3	3·36	Woodsetts Grange..	9	1918

large daily rainfalls were slightly less common in 1915 than in 1918, but far fewer stations recorded falls between 2 and 3 inches in 1918 and the comparative infrequency of daily rainfalls reaching 7·5 per cent. of the annual total was also noteworthy.

TABLE IV.—*Comparison of Heavy Daily Rainfalls.*

		No. of Records.	Falls of 7·5 per cent. or more.		Falls of 2·00 in. or more.		Falls of 3·00 in. or more.		Falls of 4·00 in. or more
			No.	Per cent. of total.	No.	Per cent. of total.	No.	Per cent. of total.	No.
ENG. & WALES,	1915	3745	112	3·0	748	20·0	41	1·1	1
	1916	3626	62	1·7	646	17·8	88	2·4	10
	1917	3426	311	9·1	621	18·1	155	4·5	59
	1918	3353	54	1·6	469	14·0	60	1·8	7
SCOTLAND,	1915	550	26	4·7	212	38·5	33	6·0	1
	1916	533	17	3·2	353	66·3	60	11·2	12
	1917	558	5	0·9	209	37·5	36	6·5	9
	1918	541	4	0·7	136	25·1	10	1·8	2
IRELAND,	1915	256	0	0	71	27·7	8	3·1	0
	1916	243	3	1·2	118	48·6	21	8·7	7
	1917	239	15	6·3	62	25·9	4	1·7	0
	1918	241	0	0	25	10·4	1	0·4	0
BRITISH ISLES,	1915	4551	138	3·0	1031	22·6	82	1·8	2
	1916	4402	82	1·9	1117	25·4	169	3·8	29
	1917	4223	331	7·8	892	21·2	195	4·6	68
	1918	4135	58	1·4	630	15·2	71	1·7	9

MONTHLY RAINFALL IN 1918.

THE calendar month is in some ways an unsuitable division of time for the study of rainfall fluctuations throughout the year, its principal defect being its varying length. It however presents the great advantage of being an easily recognizable and universally adopted period which has always been used for the purpose of grouping meteorological records so that there is no difficulty in computing average values for stations where observations extend back over a sufficient period.

Since the year 1908 no change has been introduced in the method of presenting an account of the distribution of monthly rainfall. The section is the most laborious and time-consuming in *British Rainfall*, with the exception of the General Tables in Part III., for it involves the plotting of about 2,000 separate rainfall values on each of twelve monthly maps, in order to define the distribution of rainfall with the highest possible degree of accuracy and detail. These maps, which on a greatly reduced scale are reproduced on the left-hand side of each opening of the volume from pages [66]-[67] to [88]-[89], are in the first place drawn on the scale of 19 miles to an inch, that is, each map is about 32 inches deep and 29 inches wide. The originals are preserved, and, together with those for previous years, form the beginning of a series of cartographical records of monthly rainfall distribution set out with a degree of minuteness which we venture to think would be impossible to attain in any other country in the world. The maps on the right hand or opposite page are simpler, partly from their nature and partly from necessity. They are drawn, originally on the scale of 40 miles to an inch, by plotting the records of rather more than 100 stations for which rainfall averages covering a period of 35 years are available. Showing as they do the relation of the rainfall in each month of the year to the average they form a necessary complement to the maps of actual rainfall facing them. The geographical distribution of rainfall in the British Isles is commonly so involved and varied that, even though we were able to print maps of the average distribution in each month by the side of that for the same month of the year under review, it would often be extremely difficult by mere inspection

to determine more than the main trend of abnormality. The percentage maps, however, set this forth clearly and frequently bring out extremely interesting geographical features of the rainfall distribution which would be difficult to detect even by close inspection of the run of the isohyets on the maps on the left-hand side.

A selection of 300 records used for the isohyetal maps is given in Table II. on pp. [93] to [101]. The records are carefully chosen in the first place for their known accuracy and in the second place to give as equable a distribution as possible over the whole of the British Isles. This is very easily attained in England and over the greater part of eastern Scotland and Ireland, but in the west of Scotland and Ireland, and in part of Wales, the choice is restricted and the distribution is not so good as we could wish. It is, however, sufficiently good to enable us to accept the arithmetical means as representing the general values for the countries with a fair degree of accuracy. These means are given in heavy type in the table.

The records upon which the percentage maps are based are given in Table I., but for economy in space, only the actual percentage value is printed. The mean values from this table are also reasonably representative of the general percentages for the countries, and they provide the material for the following summary of the principal features of the year.

For the **British Isles** as a whole six months of the year were wet and six months dry, the wet months being January, February, July, September, October and December. No month showed a remarkable wetness except September, which with 211 per cent. of the average was one of the wettest Septembers known to have occurred in the British Isles. Further particulars are given later of this remarkable month. Of the dry months of the year, four, from March to June inclusive, were consecutive, and, apart from the wet September, this period of deficient rainfall constituted the principal feature of the year. The driest months over the country as a whole were March and June, with 57 and 60 per cent. of the average respectively.

In **England** April had slightly more than the average and October somewhat less, but otherwise the sequence of the months was similar to that for the British Isles as a whole. July, owing to local thunderstorms, was wetter than in other parts of the British Isles and September, with 256 per cent. of its average fall was abnormally wet. Of the dry months

June, with 47 per cent. of the average fall, was relatively the least rainy, March, with 55 per cent. being the second driest month. October and November, with 67 and 77 per cent. of the average respectively, were drier in England than elsewhere.

Wales, like England, had six wet months and six dry months, but May took the place of April among the former. September, with 264 per cent. of the average was even wetter in Wales than in England, and December, with 151 per cent. of its rather high average, was the second wettest month. The dry months, March and June, were less dry in Wales than in other places, but August with 61 per cent. of the average, was drier than, and October and November were nearly as dry as, in England.

Scotland. September, although a wet month was less so in Scotland than in the south; and February, with 167 per cent. of its average rainfall, here took its place as the wettest month of the year. The four months March to June, inclusive, were the only ones with less than their average rainfall, and of these, May, with 99 per cent., was only technically dry. It is interesting to observe that no fewer than five months, January, May, August, November and December, had a general rainfall in Scotland within 5 per cent. of the average.

In **Ireland**, September, with 200 per cent. of the average, was the wettest month, and, as in Scotland, February was also a month of relatively high fall. March, April, May, June and August had less than their average rainfall, April, with 54 per cent., being the least rainy.

The most conspicuous feature of the monthly rainfall of 1918 was undoubtedly the very wet September. This month passed by with less comment than it merited on account of the fact that at the time the Censor's restrictions forbade any reference to the weather. During the last few years several remarkable instances of heavy cyclonic rainfalls have occurred during September, but these have affected only limited areas and, broadly speaking, the month has for many years past been one of lower rainfall than either August or October. The conspicuous exception afforded by the unusually wet September of 1918 challenges comparison with the conditions in September, 1896, a month referred to by a large number of Observers in writing with respect to September, 1918. In the south-east of England certain areas had a larger rainfall in September, 1896, than in 1918, but, taking the country as a whole, September, 1918, was far wetter. In order to compare the rainfall of the two months in detail we have prepared a table using as far as possible the same

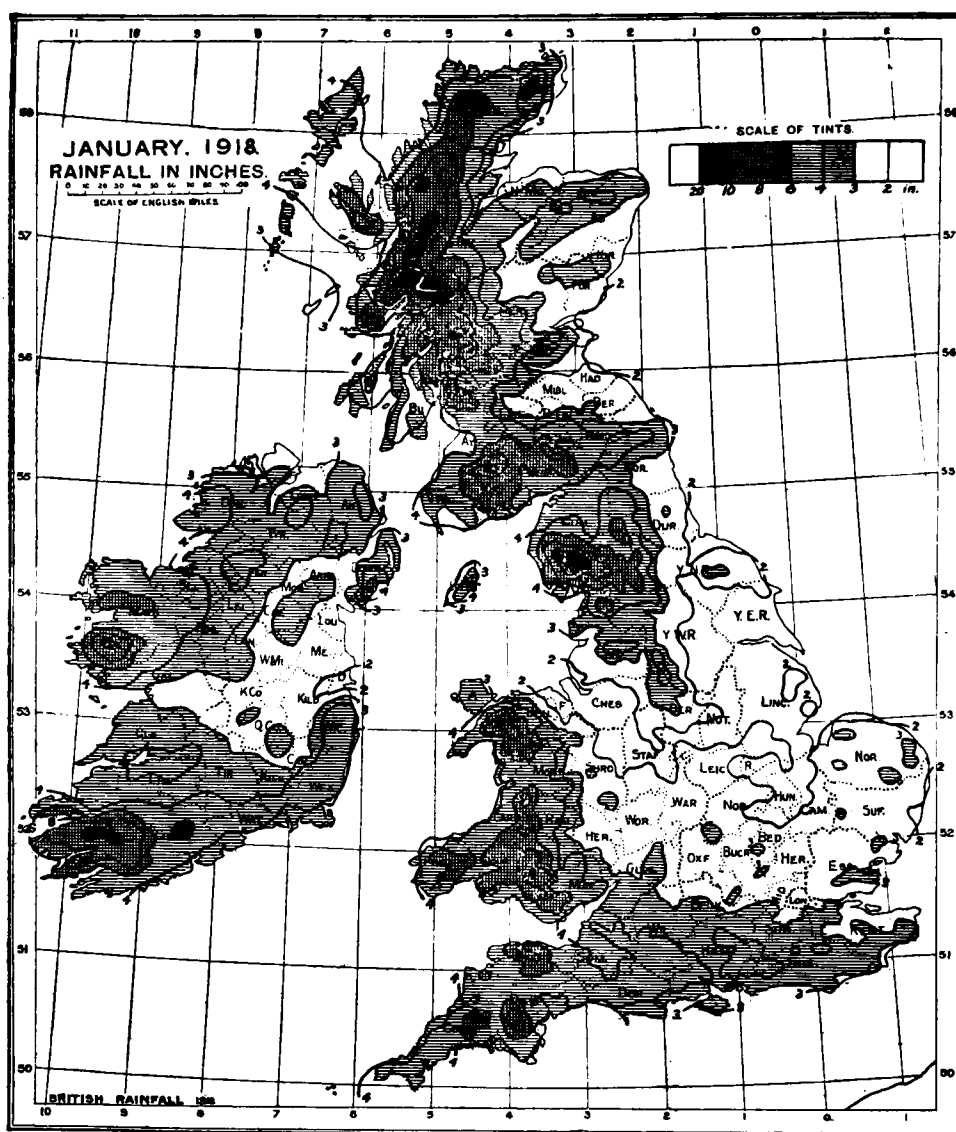
stations as those used in Table II., and give the total rainfall in September, 1896, at each station in England and Wales, and the percentage which it formed of the average. The values for Scotland and Ireland were not of sufficient interest to warrant quotation in full, and in fact a small area in the west of Scotland had slightly less than the average fall. More than twice the average fell extensively only in England and the south of Ireland, and the area of most remarkable wetness appears to have been confined to the south of England and Wales, from Radnorshire, Glamorgan and Devonshire eastward, to Suffolk and Kent, within which district more than 250 per cent. of the average fell, rising to approximately 300 per cent. in places. The general values of rainfall show clearly that September, 1918, was considerably the wetter month of the two in all the great divisions of the country.

Rainfall of September, 1896, England and Wales.

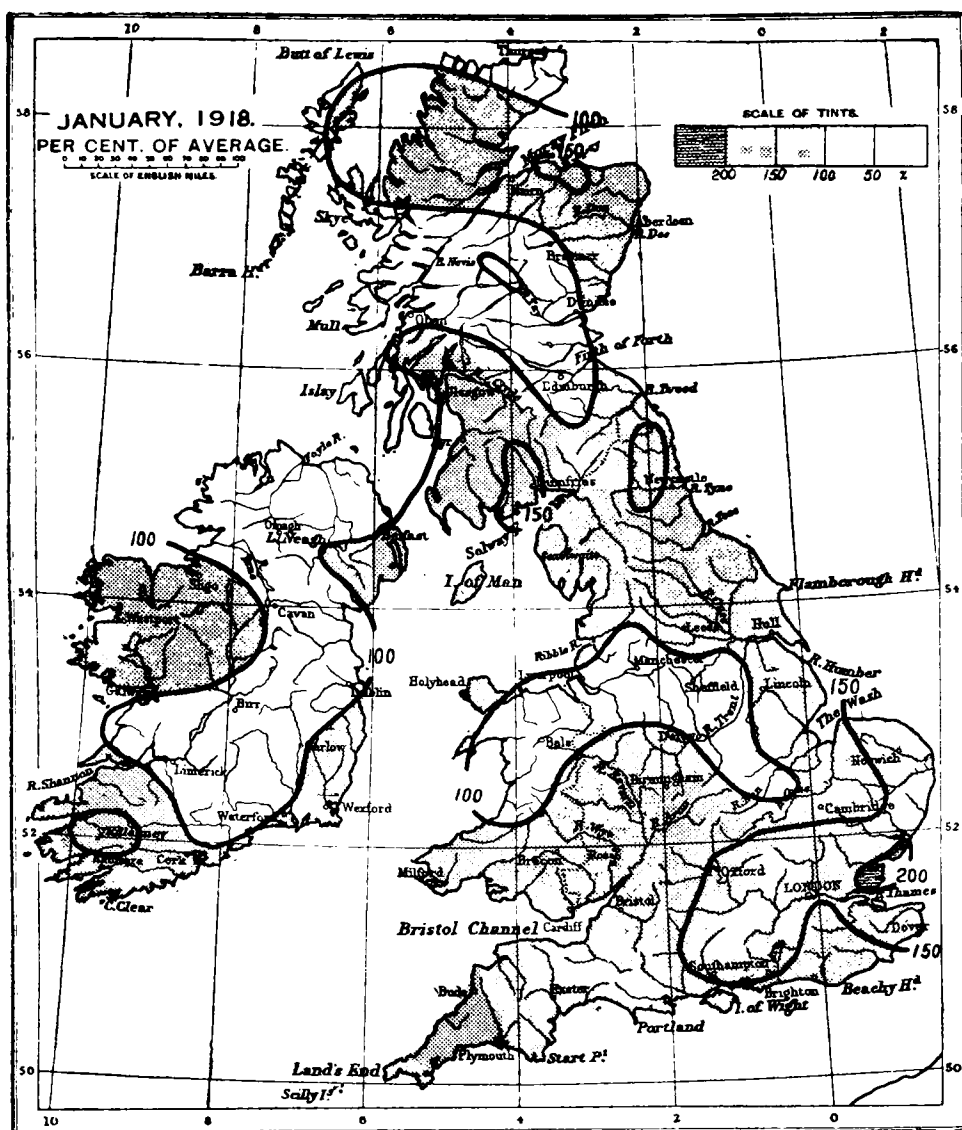
		in.	Per cent of average.			in.	Per cent of average.
I.	Camden Square . . .	5.51	275	VII.	Revesby	4.52	205
II.	Tenterden	5.61	249		Lincoln, Skellingthorpe	3.25	180
	Edenbridge	6.18	257		Mickleover Manor . .	3.49	165
	Patching	7.61	295	VIII.	Middlewich	4.86	183
	Fordingbridge	7.08	296		Stonyhurst College .	7.09	168
	Sherborne St. John .	6.39	286		Southport, Hesketh Pk.	4.45	144
III.	Royston, Therfield .	5.59	282	IX.	Redmires Reservoir .	8.32	270
	Oxford, Magdalen Coll.	4.83	244		Arncliffe Vicarage . .	8.89	195
	Wellingborough . . .	5.19	244		Wetherby, Ribston H.	4.67	221
	March	3.69	185		Hull, Pearson Park .	3.83	187
IV.	Shoeburyness	3.62	213		Scarborough, Osgodby	2.35	121
	Bury St. Edmunds . .	6.32	290	X.	Darlington	3.38	181
	Geldeston	3.89	183		Newcastle-on-Tyne .	2.27	114
	Holkham Hall	3.70	178		Howick Hall	3.70	163
V.	Bishops Cannings . .	5.90	231		Carlisle	4.08	145
	Evershot, Melbury Ho.	8.02	264		Seathwaite	15.78	140
	Ashburton, Druid Ho.	8.82	248		Appleby, Castle Bank	4.67	167
	Barnstaple	5.68	181	XI.	Abergavenny	6.65	236
	Falmouth Observ't'y	5.39	164		Ystalyfera, Wern Sch.	11.76	236
	Altarnon Sanctuary .	8.78	198		Cardiff, Ely	9.67	268
	East Harptree	7.35	237		Haverfordwest	6.69	171
VI.	Stroud	5.27	221		Gogerddan	7.28	187
	Wolstaston	4.96	207		Tyrmynydd	11.67	263
	Malvern	5.23	225		Pack Saddle Res. . . .	5.76	239
	Ryton-on-Dunsmore	4.57	209		Llandudno	4.77	191
VII.	Belvoir Castle	4.15	187		Holyhead	4.31	149

General Rainfall as Percentage of Average.

September.	England.	Wales.	Scotland.	Ireland.	British Isles.
1896	203	218	129	170	173
1918	256	264	154	200	211

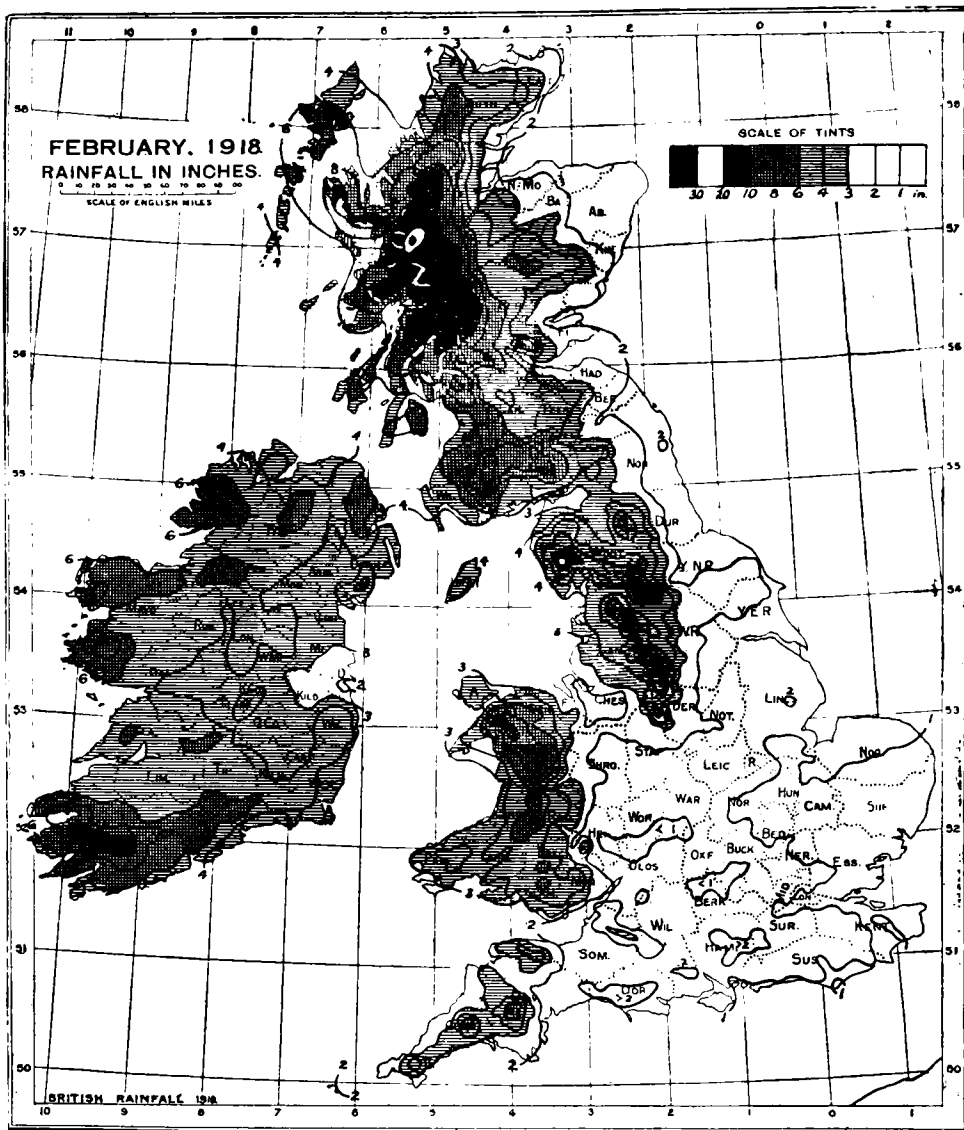


January.—The first half of the month was wintry, with frequent snow, culminating in a heavy cyclonic fall of rain and snow on the 15th. The second half was milder and generally finer under the influence of anti-cyclonic conditions. Less than 2 inches of rain fell over a considerable area in the north-east of England, but otherwise the eastern districts generally had from 2 to 3 inches of rain. The distribution was of normal winter type, with more than 4 inches over all elevated land except part of the southern Pennines. More than 6 inches fell widely in the West Highlands, over the greater part of the interior of Wales, and in all the higher districts in the west, but the areas with 10 inches were not large in England and Ireland.

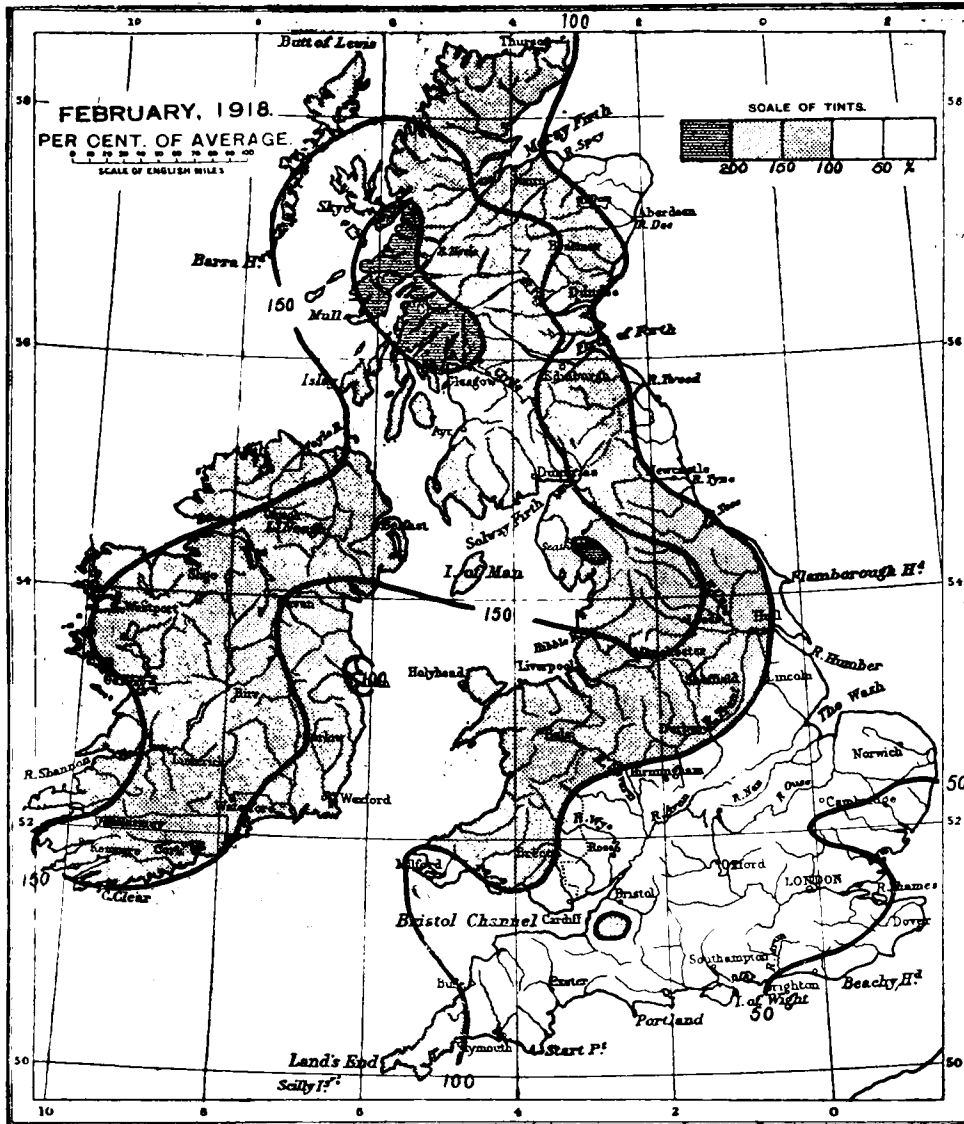


Large areas in the centres of Ireland, Scotland and England had rather less than their average fall for the month, that in Ireland being the largest and extending to the north coast, and that in Scotland the driest, with rather more than 50 per cent. defect in the north of Perthshire. In the north and west only very small patches had more than 50 per cent. above the average, but a considerable area in south-east England reached this excess and a small part of the coast of Essex had rather more than twice its average fall.

The general rainfall in Scotland was equal to the average; in Ireland there was an excess of 7 per cent., in Wales of 10 per cent., in England of 29 per cent, and for the British Isles, as a whole of 12 per cent.



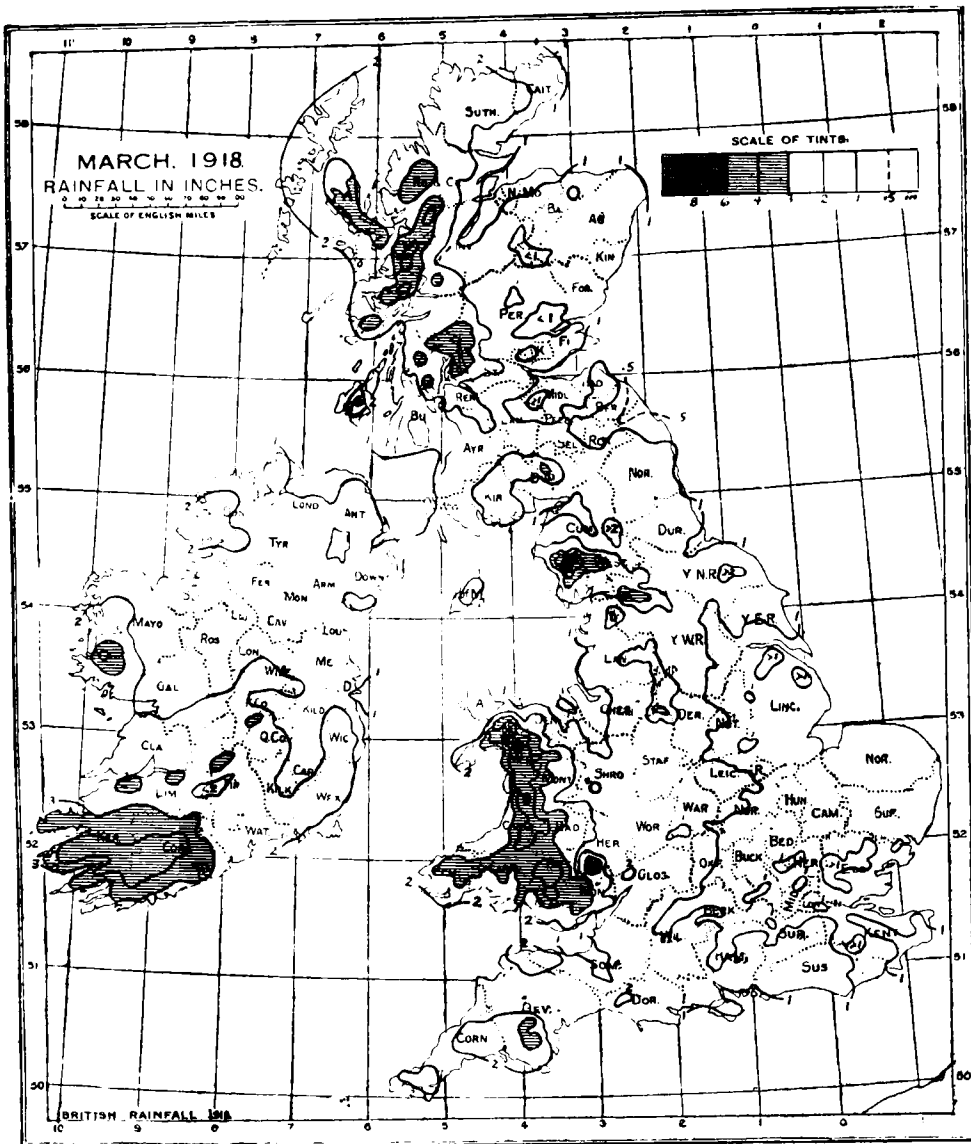
February.—The month was mild, with prevailing west or south west winds, bringing much rain in the west and particularly the north-west of the British Isles. In the east the weather was fine and open. The total rainfall exceeded 10 inches over a large part of the Western Highlands, and in smaller areas in the south of Scotland and the west of Ireland, Cumberland and Snowdonia. It rose to more than 20 inches in several places and exceeded 30 inches in part of Inverness-shire. The area with more than 6 inches was, however, not exceptionally large, especially in England and Wales. Towards the east of Ireland there was only a slight falling off in the total rainfall, the amount exceeding 3 inches over most of the coast, but in Great Britain the diminution towards the east was



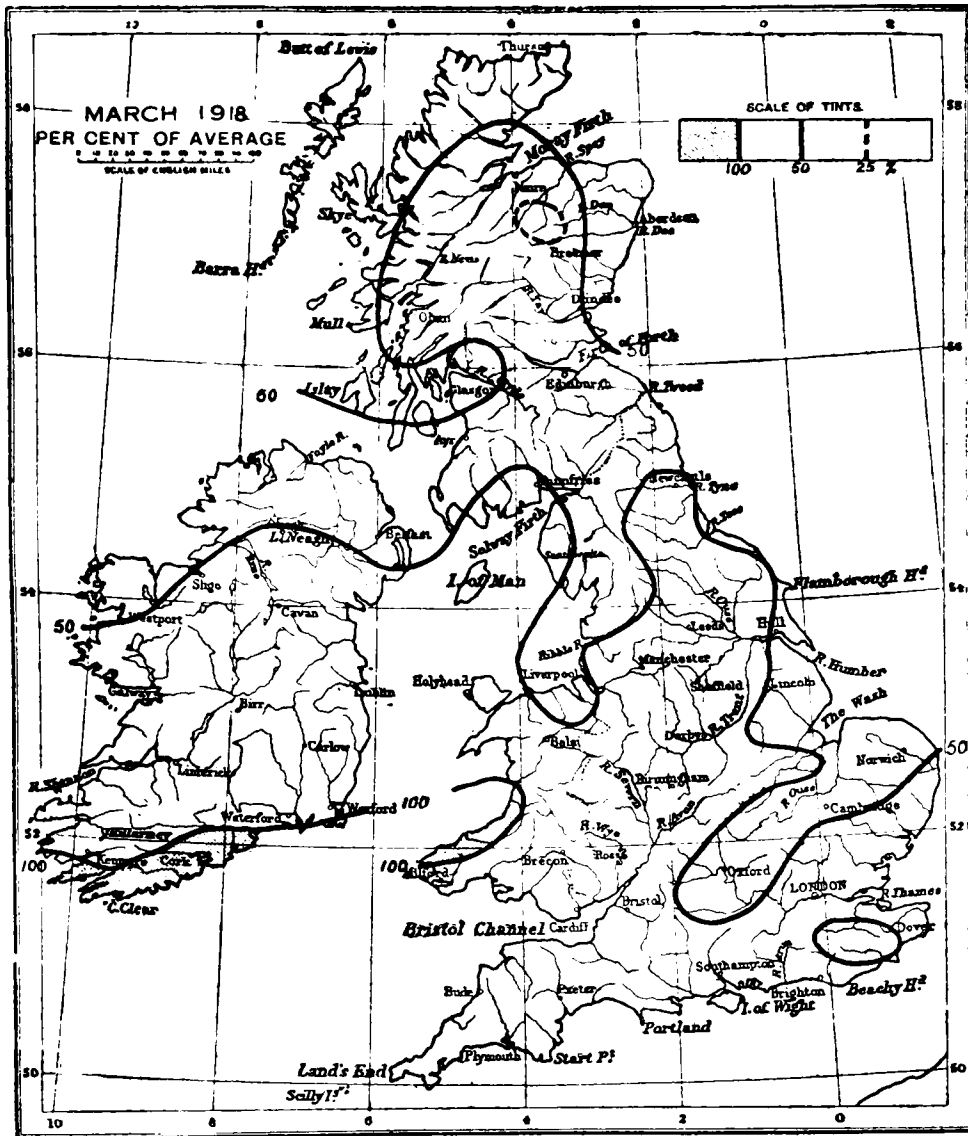
unusually abrupt and less than 2 inches fell along a coast strip of varying width from Caithness to Start Point. In the south-east of England less than 1 inch fell.

The rainfall exceeded twice the average between Glasgow and the Isle of Skye, and also in Westmorland. It fell below the average on the east coast of Scotland and on the southern half of England. In the extreme south-east the fall was slightly more than 50 per cent. below the average.

The general rainfall was 2 per cent. above the average in England and 9 per cent. in Wales. In Ireland there was an excess of 59 per cent., and in Scotland of 67 per cent. Over the British Isles, as a whole, the excess was 38 per cent.

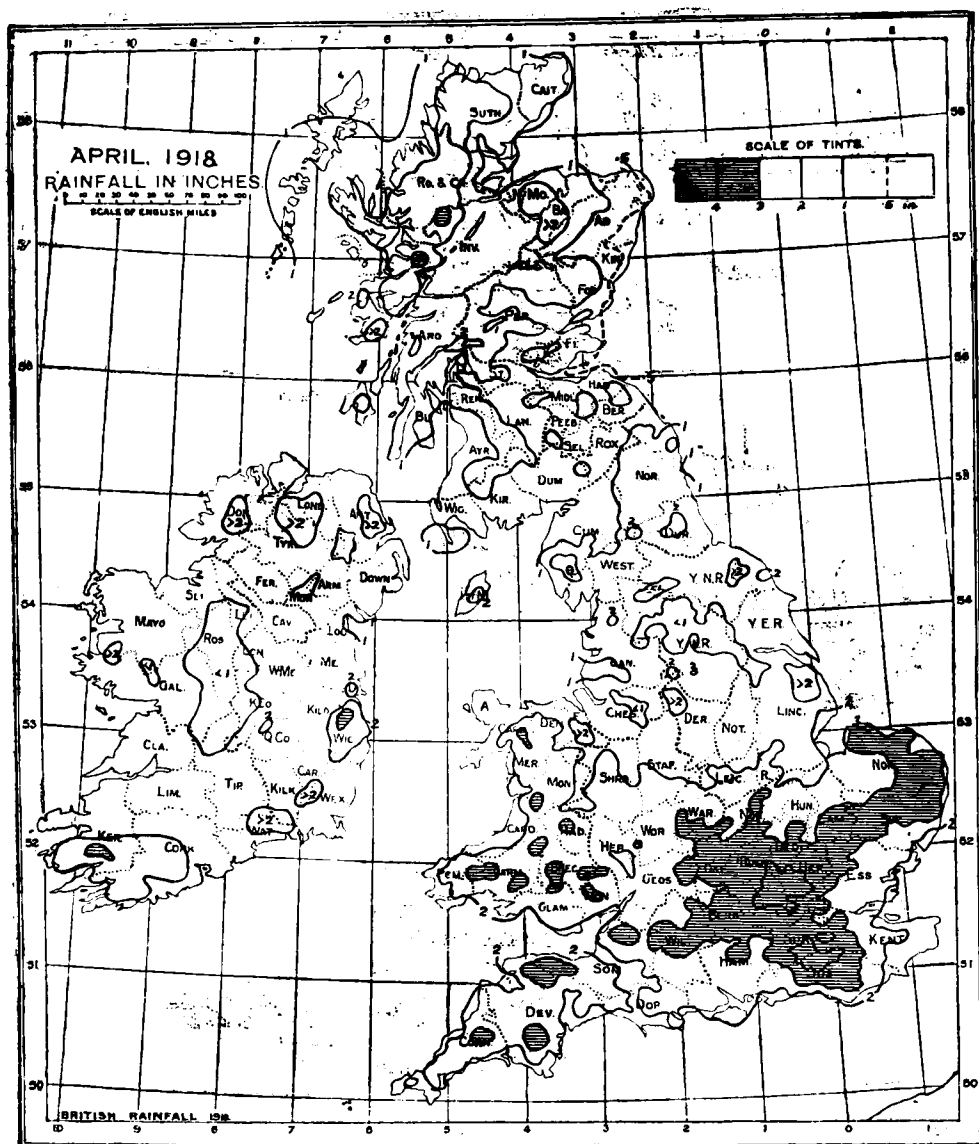


March, which was, over the country as a whole, the driest month of 1918, relatively to the average, was characterized by a preponderance of anti-cyclonic conditions. The total rainfall was less than 1 inch over a large part of the eastern half of England, along a narrow coast strip in the east of Scotland, and also on sheltered portions of the west coasts. Round Berwick-on-Tweed, less than .50 in. fell. In England, only small and scattered mountain areas had as much as 2 inches, but this amount fell over most of the west of Scotland and the southern half of Ireland. The areas with 4 inches were extremely small, and were confined to the normally rainy places, the only area with this amount exceeding a few square miles in area, being in Co. Cork and Co. Kerry.

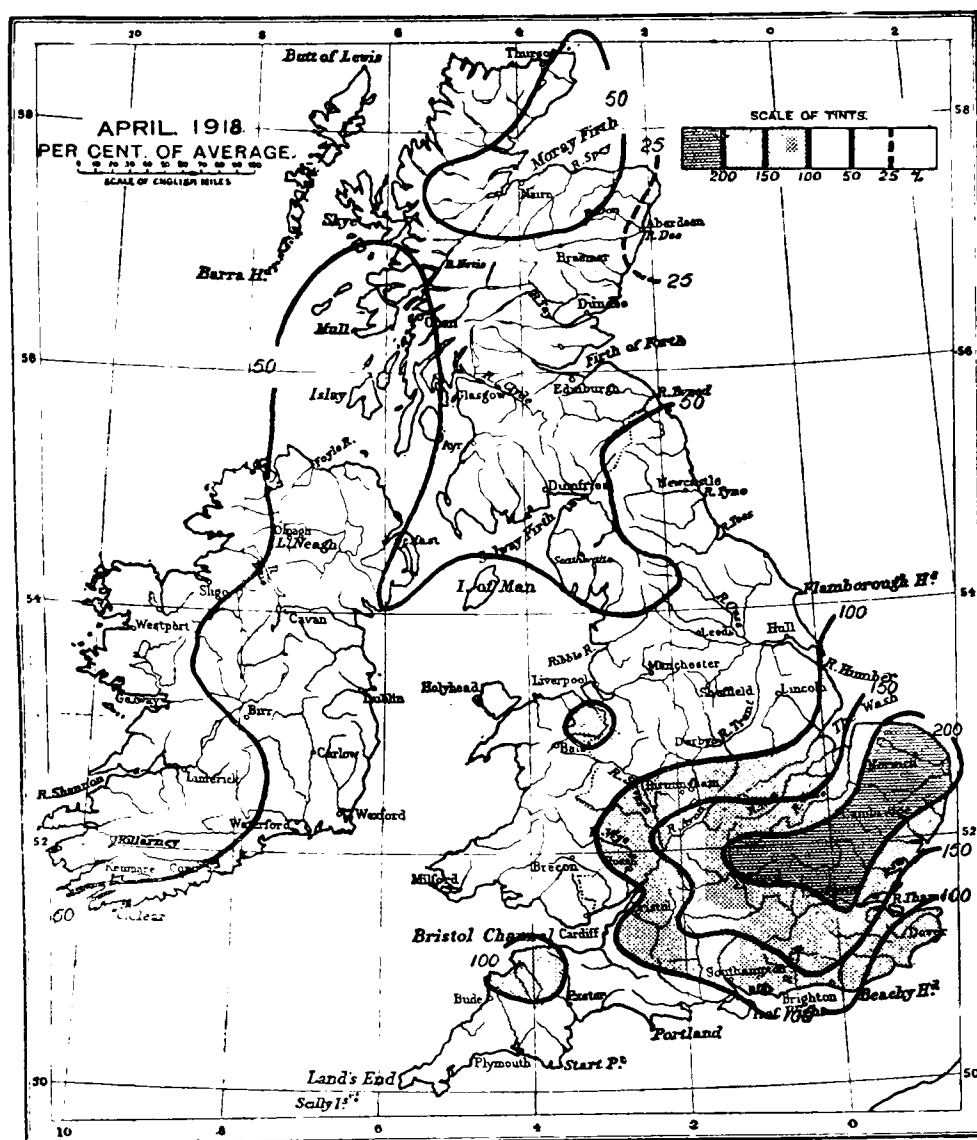


A narrow band, stretching from Bantry Bay, in Co. Cork, to the south-east coast of Wales, just reached its average fall for the month. Over about three-quarters of the area of the British Isles there was a deficiency from the average rainfall of less than 50 per cent., but the north of Ireland, the centre and south of Scotland, and the north-west and east of England, all had less than half their average fall. The deficiency was greatest, about 75 per cent., in the middle Spey Valley.

Scotland was the driest of the great divisions of the country, having 52 per cent. less than the average fall. In England, the deficiency was 45 per cent., in Ireland, 35 per cent., and in Wales, 23 per cent. For the British Isles, as a whole, there was a deficiency of 43 per cent.



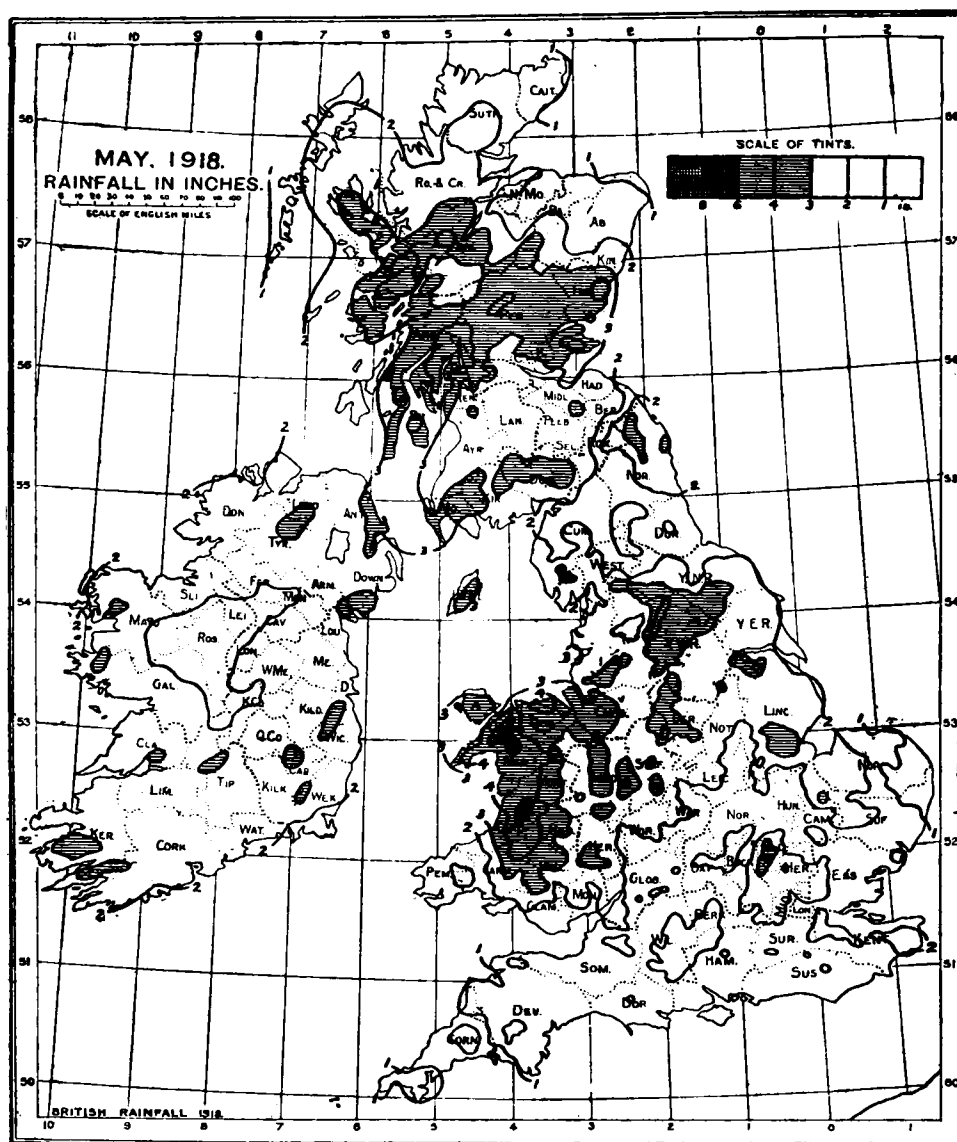
April.—With persistent north-easterly wind April was a month of unusually low temperature, and, with the pronounced exception of the south-east of England, one of low rainfall. The fall in the district near London, more especially in Hertfordshire and the north of Sussex, was probably unprecedentedly heavy, exceeding 5 inches in places. More than 3 inches fell from Bath to Cromer and northwards to Birmingham, but in other parts of the country, including the English Lake District, Snowdonia and the West Highlands, falls of as much as 3 inches were extremely local. A total of less than 2 inches was very widespread and less than 1 inch fell over extensive areas in the south and east of Scotland and also in parts of central Ireland and the north of England. Less than .50 in.



fell on part of the east coast of Scotland.

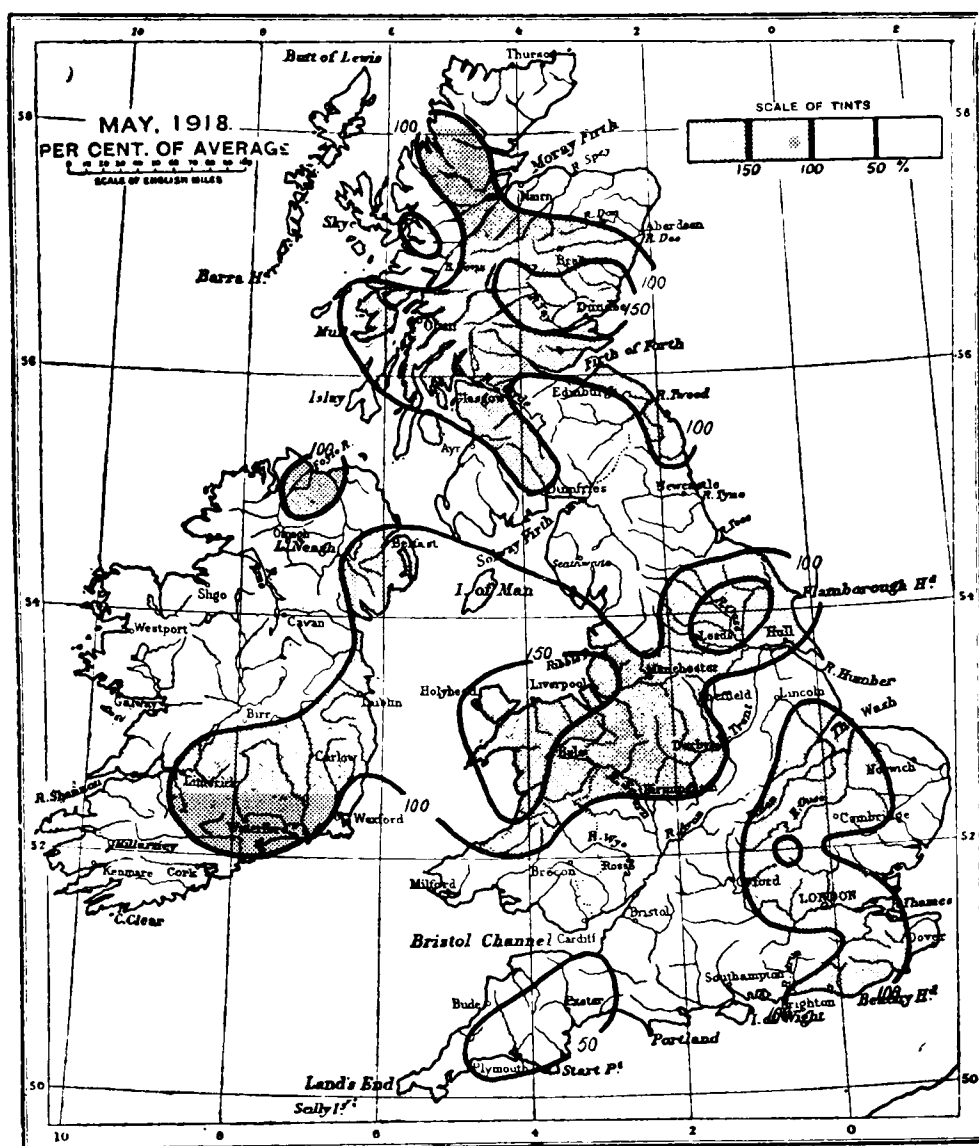
The total fall exceeded the average over England south of the Wash and east of Bristol. From Oxford north-eastward to Cromer and Yarmouth, more than twice the average fell. The areas of greatest deficiency were the western half of Ireland the north-west of England and the south-eastern half of Scotland. In eastern Aberdeenshire the deficiency was more than 75 per cent.

The wet patch in England brought the general fall to 5 per cent. above the average, but in Wales there was a deficiency of 26 per cent., in Ireland of 46 per cent., and in Scotland of 55 per cent. The fall for the British Isles as a whole, was 28 per cent. in defect.



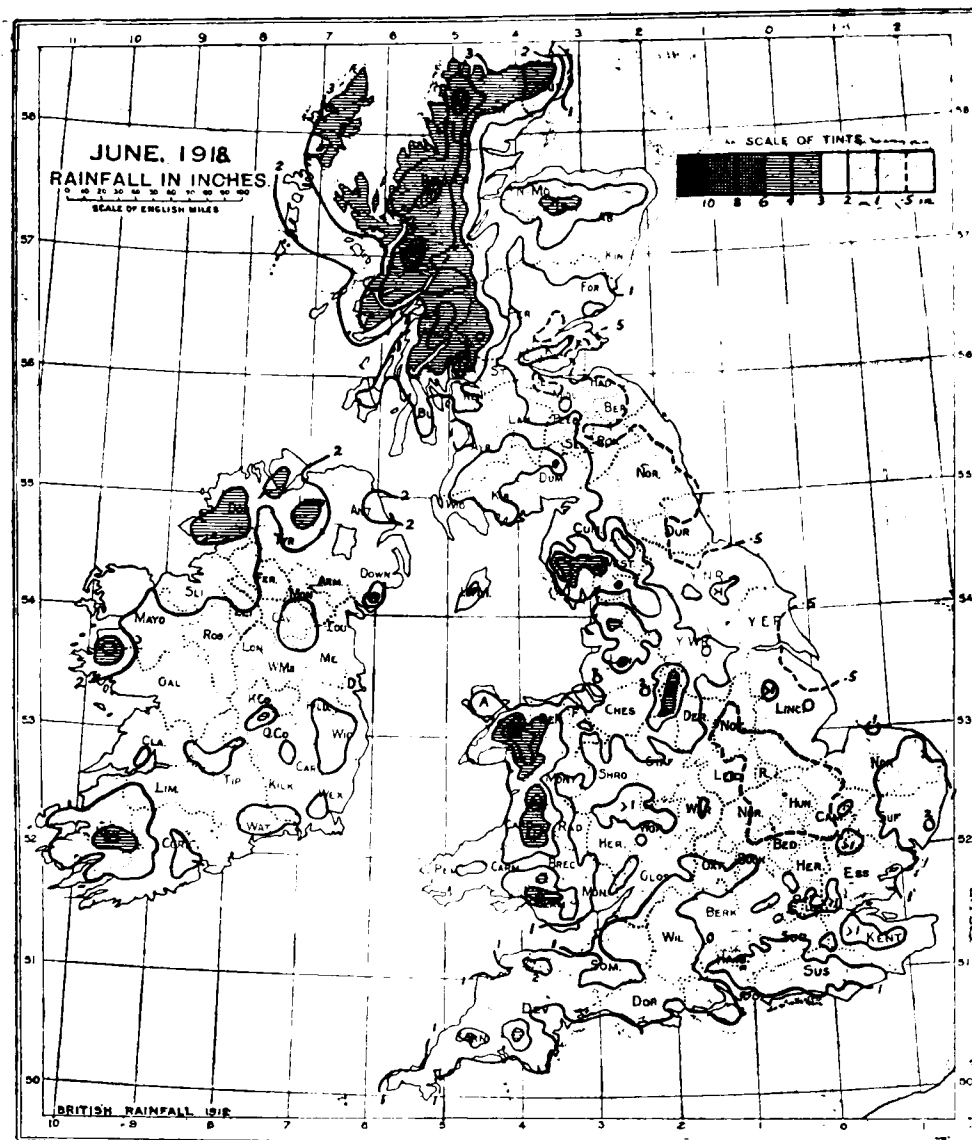
May.—After the first week the wind changed from easterly to westerly and the weather became somewhat unsettled with severe but very local thunderstorms. The distribution of rainfall was extremely patchy. Less than 1 inch fell on parts of the coast, both in the east and west, and less than 2 inches fell over most of the south of England and Wales as well as the north of Scotland and the centre of Ireland. More than 4 inches fell over the greater part of Central and North Wales, and over part of the West Highlands, but apparently nowhere in Ireland. This amount was also reached in small areas in the English Midlands, where thunder rains were heavy and it is probable that as much as 6 inches fell locally.

Broadly speaking the rainfall was above the average in central

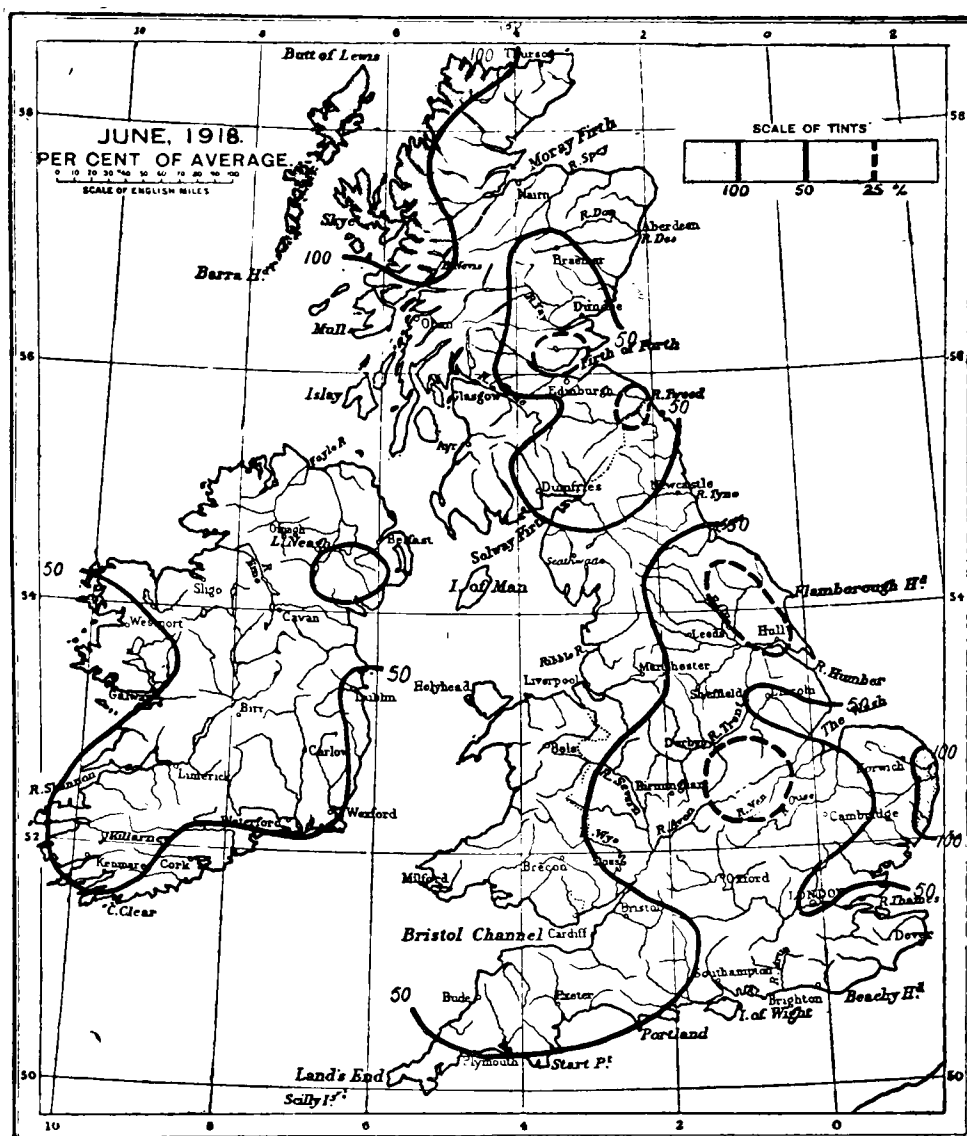


Scotland, in the east of Ireland, North Wales and the north Midlands of England, and over a strip from south Lincolnshire to Sussex. The excess was not anywhere very marked, but reached 99 per cent. at Llandudno, and probably exceeded that figure near Woburn, in Bedfordshire, where more than 3 inches fell during the thunderstorm of the 17th. Less than half the average rainfall was measured in the Devon-Cornwall peninsula, and in part of western Inverness-shire, and the deficiency was almost as great on the coast of East Anglia.

For the country, as a whole, there was a deficiency of 5 per cent. from the average, Wales, having an excess of 11 per cent., Scotland a deficiency of 1 per cent., England of 9 per cent., and Ireland of 10 per cent.

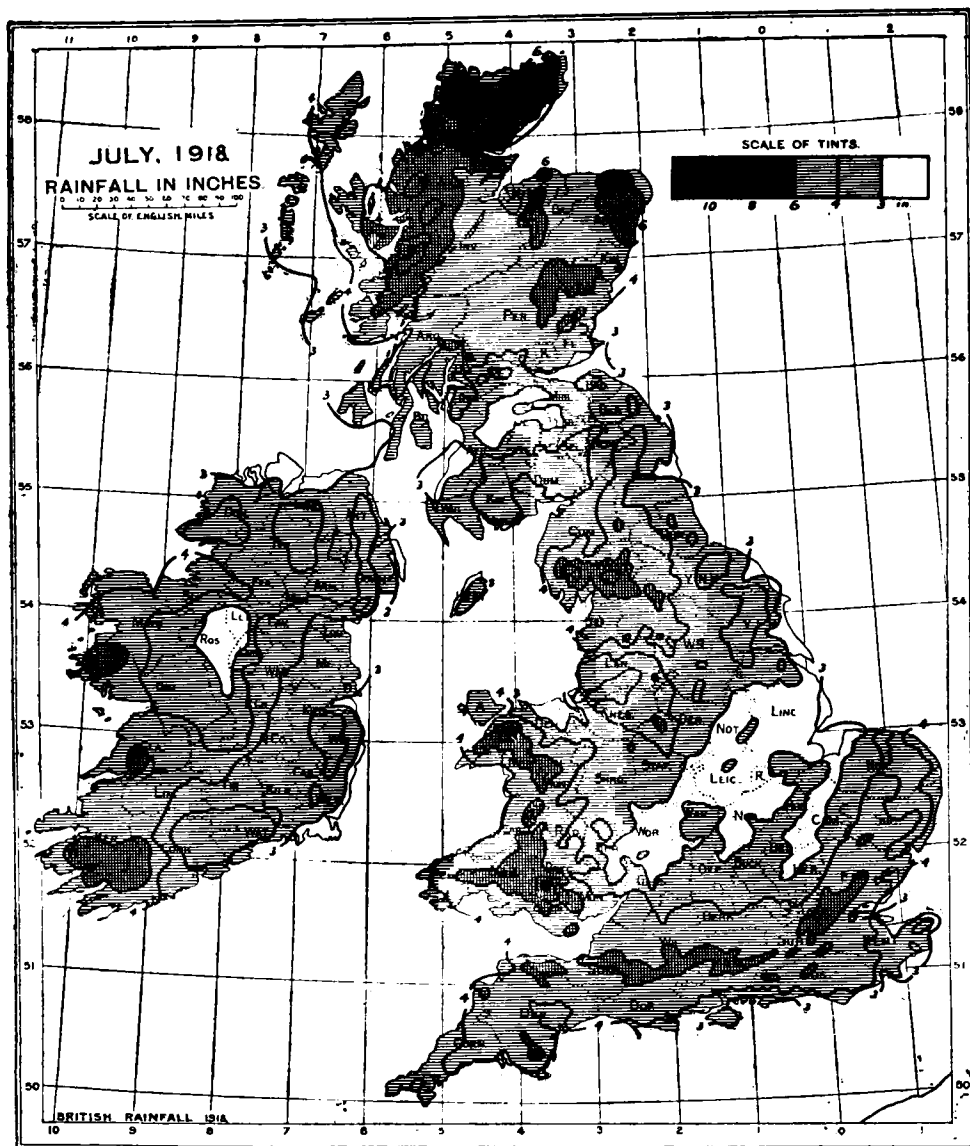


June.—Anticyclonic conditions brought cool northerly and westerly winds and generally scanty rainfall. The total fall reached 6 inches only on small areas in the west of Inverness-shire and North Wales, and it was only in these districts that as much as 4 inches fell at all widely. Less than 2 inches fell over very nearly the whole of England, most of the east of Scotland, as well as a coastal strip on the west, and over about three-quarters of Ireland. A continuous and broad band stretching from Forfarshire to near London, had less than 1 inch and most of the east coast, from St. Andrews to the Wash, as well as a large area in the east Midlands of England, had less than .50 in. Less than 1 inch fell also along the south coast.

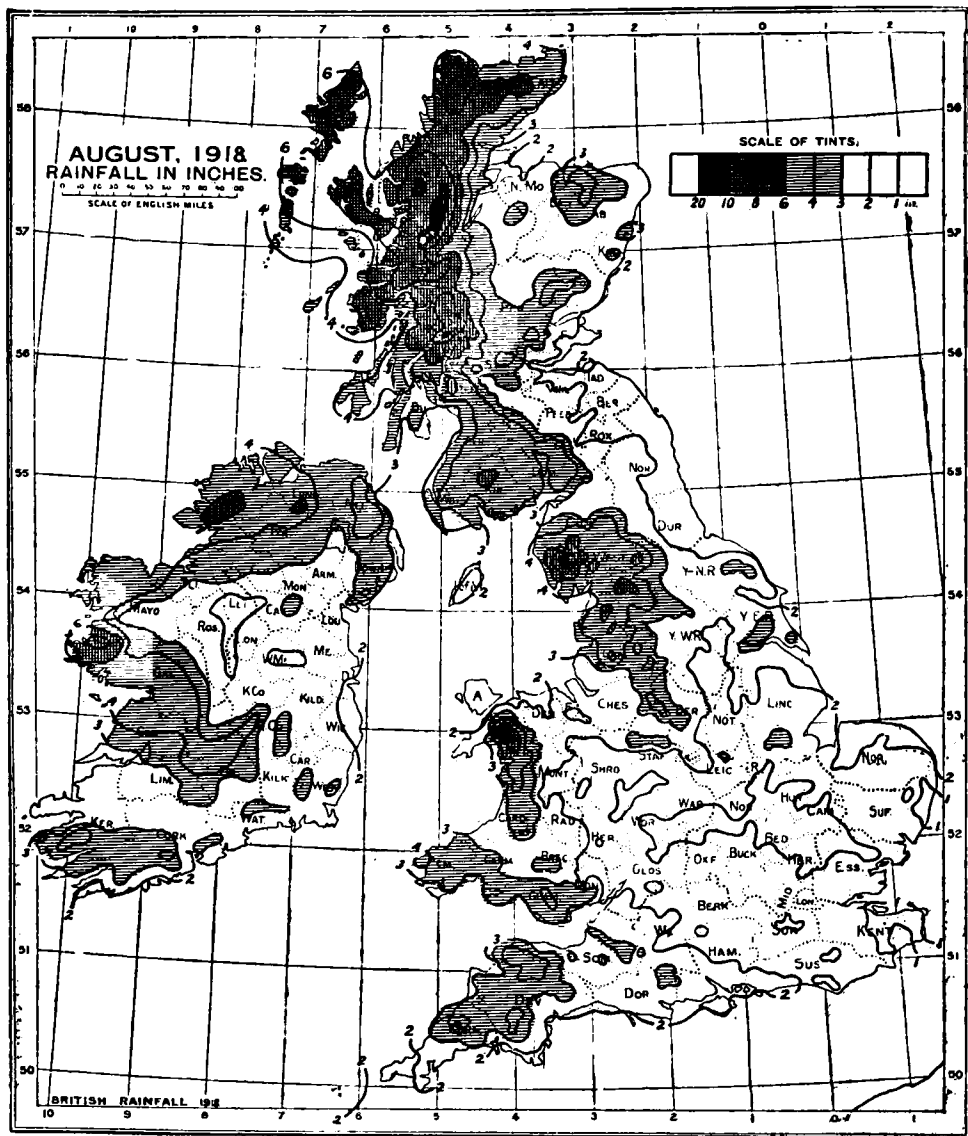


The total exceeded the average by a small margin in the west of Inverness-shire, Ross-shire and Sutherland, and also over a small patch in East Anglia, but over the greater part of the British Isles about half the average amount fell. The deficiency was greatest in the south-east of Scotland and the east and south of England, and the total fell to more than 75 per cent. below the average round the Firth of Forth, in Berwickshire, in the East Riding of Yorkshire, and in Leicestershire and Northamptonshire.

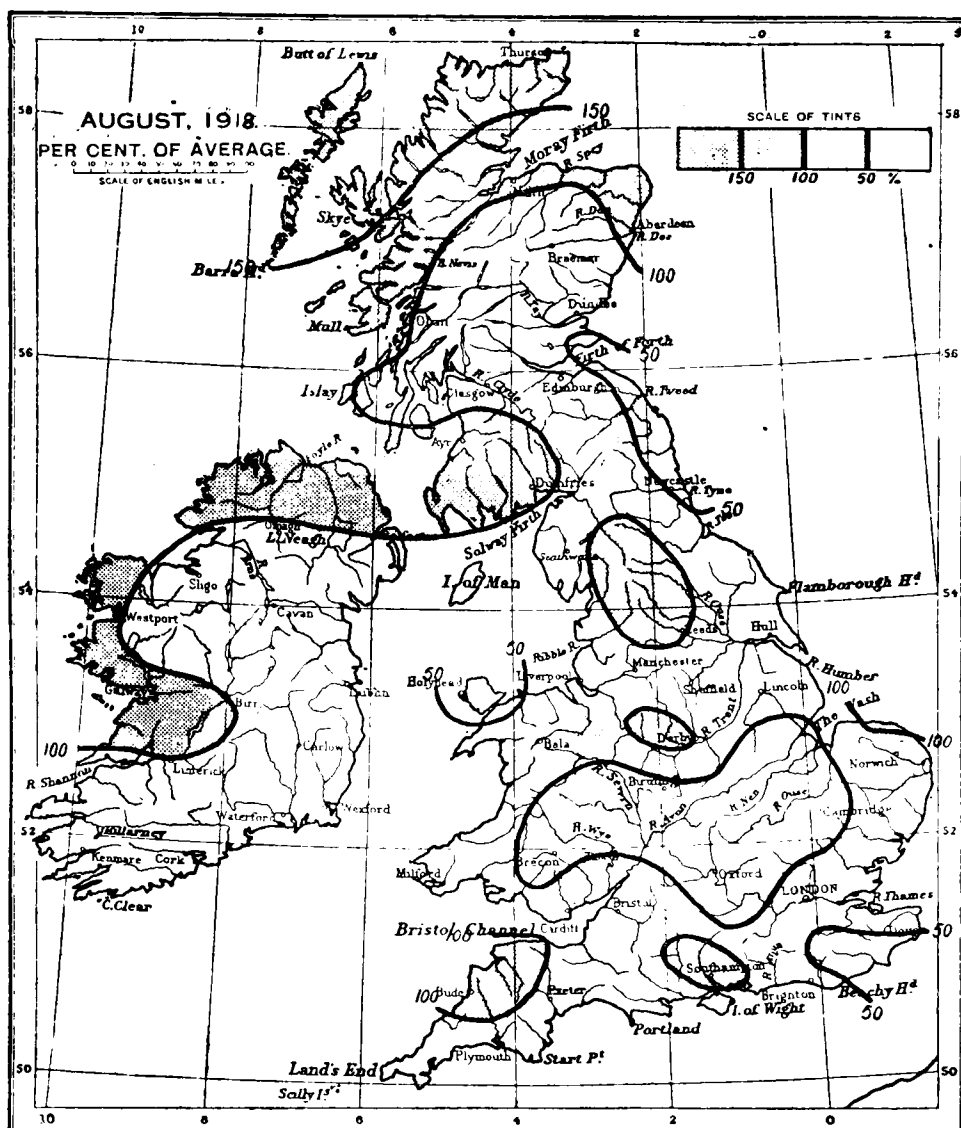
The general deficiency was greatest, 53 per cent., in England; it was 38 per cent. in Ireland, and 29 per cent. both in Scotland and Wales. For the British Isles, as a whole, there was a deficiency of 40 per cent.



July.—After the first week the weather was cool and changeable, with frequent thunderstorms. Those of the 20th and 22nd largely dominated the distribution of rainfall in England, whilst cyclonic rainfall brought heavy rains in the east of Scotland. The most unusual feature of the distribution of rainfall was a band with more than 6 inches, which extended across the south of England, from Weston-super-Mare to Chelmsford, including the south of London. Apart from this as much as 6 inches occurred only locally in England, fairly widely in Wales, and more so in Scotland, where it occupied nearly the whole of the district north-west of the Great Glen, besides large areas in the east. Parts of the English Midlands, and coastal strips in many places, had rather less than 3 inches

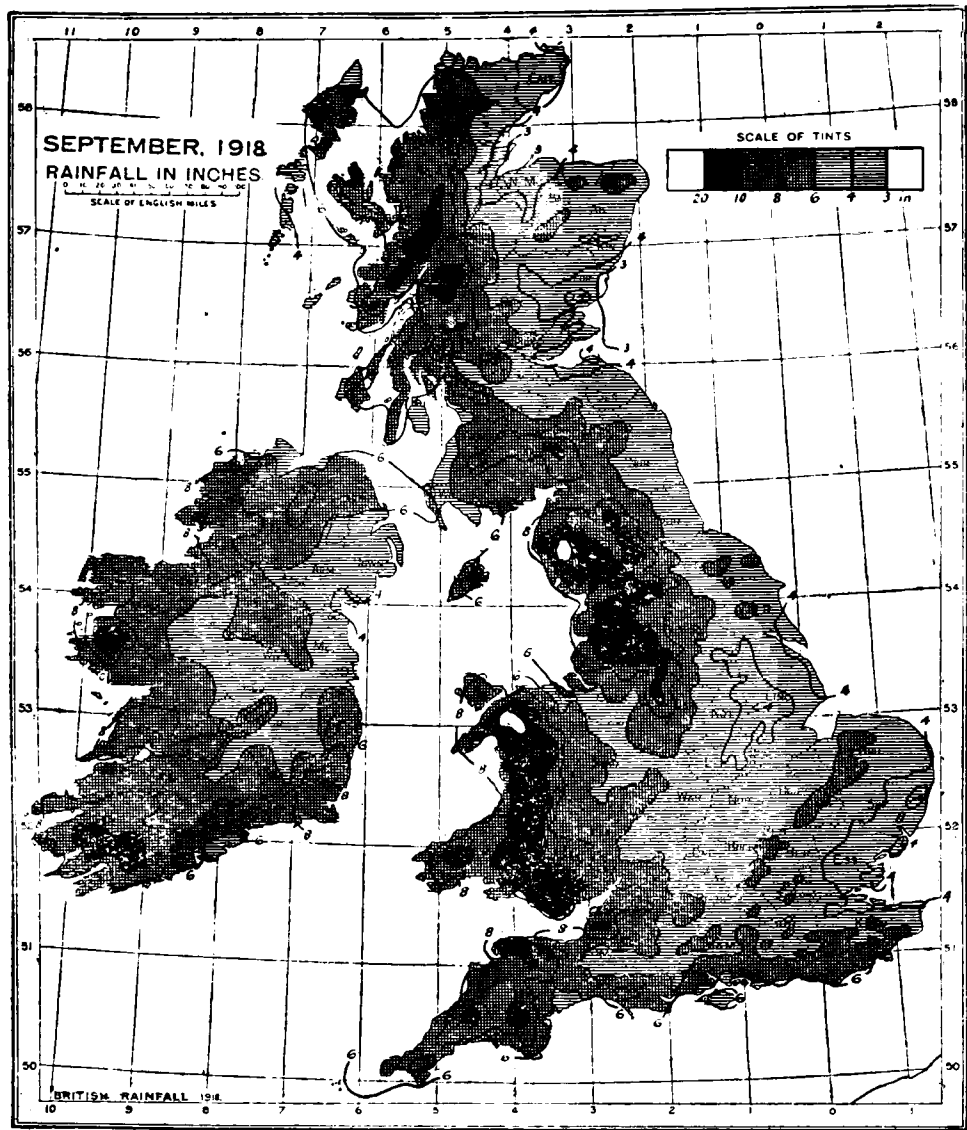


August.—The weather was changeable being unsettled during the first and last weeks and fair in the middle. The rainfall was generally deficient in England, less than 1 inch falling over part of the South Midlands and less than 2 inches over most of the south-east of the country. In Scotland and Ireland the areas with less than 2 inches were very much more restricted. Apart from the northern Pennines, only small areas in England and Wales had as much as 4 inches, though the total rose to 10 inches on Snowdon and in the Lakes. The whole of the western half of Scotland had more than 4 inches, and extensive areas, especially in the north-west had more than 8 inches. In the west of Ireland the coast strip with more than 4 inches extended southward only as far as Ennistymon.

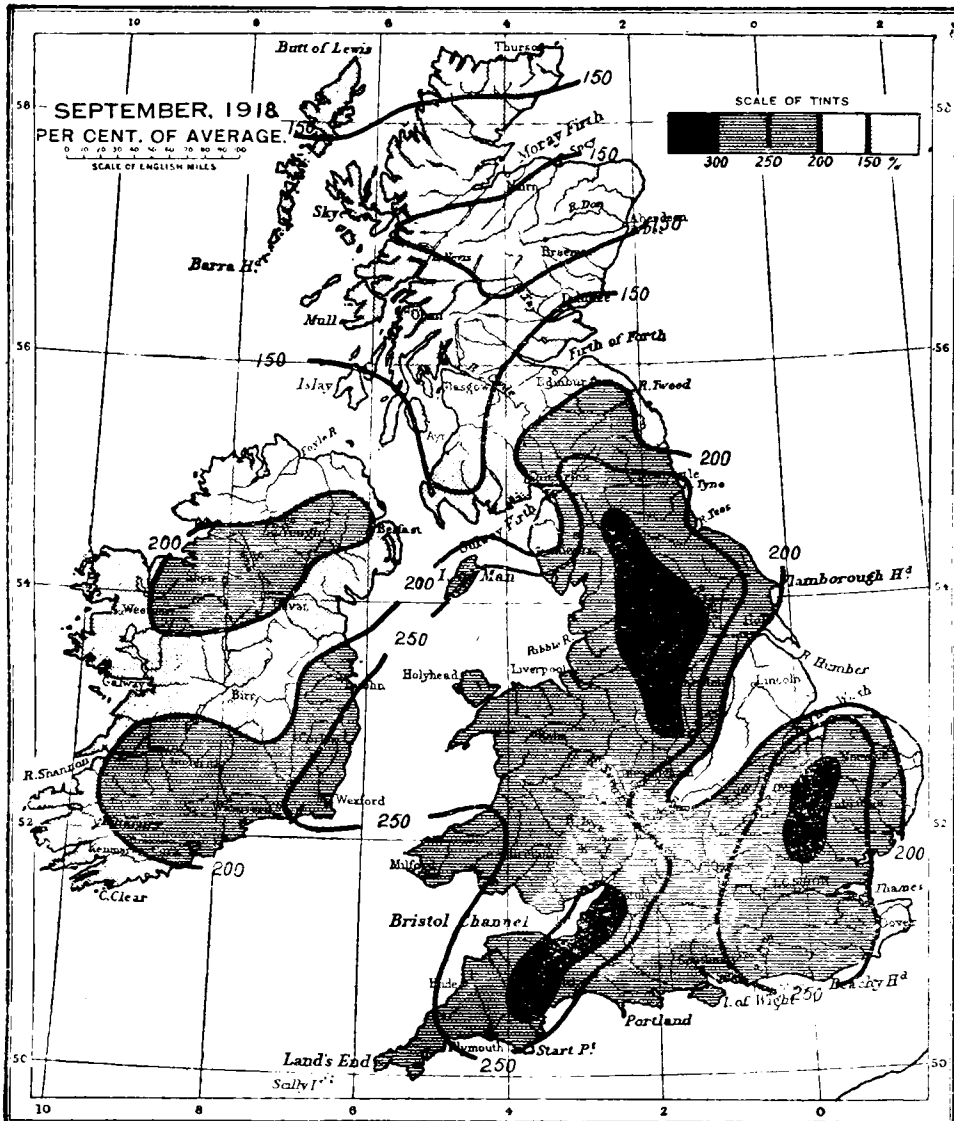


The map showing the relation of the fall to the average is somewhat complicated. More than the average fell over the north-western districts, from the Shannon Estuary northward and over the whole of the north of Scotland, the excess being greater than 50 per cent. in the extreme north-west. There were a few scattered areas with a slight excess in the western half of England. There was, however, a deficiency of more than 50 per cent. in the east of Wales and south Midlands of England, in Anglesey, Kent, and on the east coast from Fife to Co. Durham.

The general rainfall was 3 per cent. in excess in Scotland, but fell below the average by 16 per cent. in Ireland, 26 per cent. in England, 39 per cent. in Wales, and 16 per cent. for the British Isles as a whole.



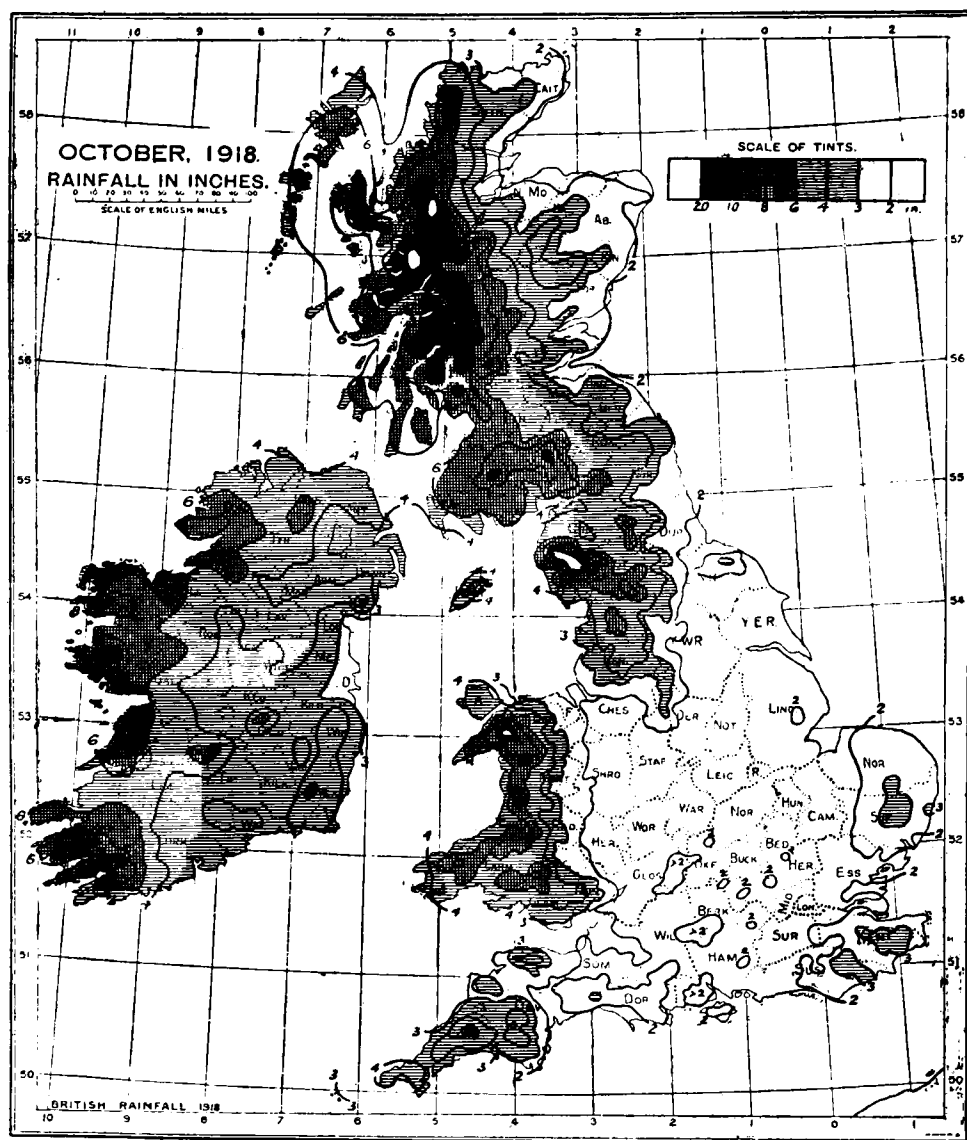
September was, both absolutely and relatively to the average, by far the wettest month of the year, and one of the wettest Septembers ever recorded in the British Isles. Cyclonic weather persisted throughout and rain was of abnormal frequency. A small area in the east had less than 4 inches in both Scotland and England, but falls of 6 inches occurred as far east as Norfolk and East Kent in England, and Northern Aberdeenshire in Scotland, whilst in Ireland more than 9 inches was observed on the east coast in Co. Wexford. Taking the British Isles at large considerably more than half the whole had a rainfall exceeding 6 inches, whilst in England and Wales the areas with more than 10 inches which occurred in all the upland districts, were extraordinarily extensive.



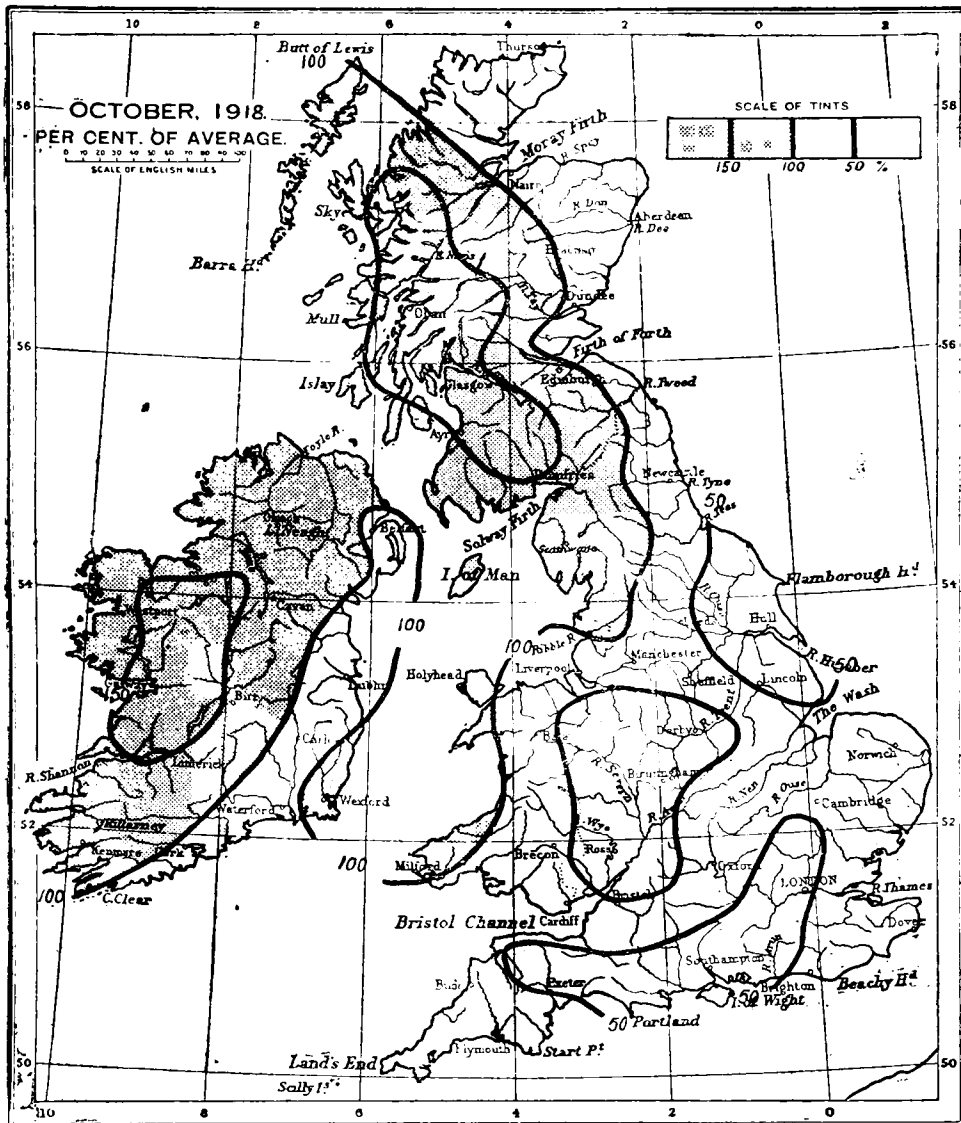
In Scotland and Ireland the 10-inch areas were more normal in extent.

Three large patches in England, occupying roughly the Pennines, Cambridgeshire and Somerset, respectively, had more than three times their average fall, and only a small part of the east of England failed to reach twice the average. More than twice the average also fell over large areas in the north and south of Ireland. In Scotland the rainfall did not anywhere differ largely from 50 per cent. in excess of the average.

The general excess was greatest for Wales, where it reached 164 per cent. in England the excess was 156 per cent., in Ireland, 100 per cent., and in Scotland 54 per cent. For the British Isles, as a whole, the excess was 111 per cent.

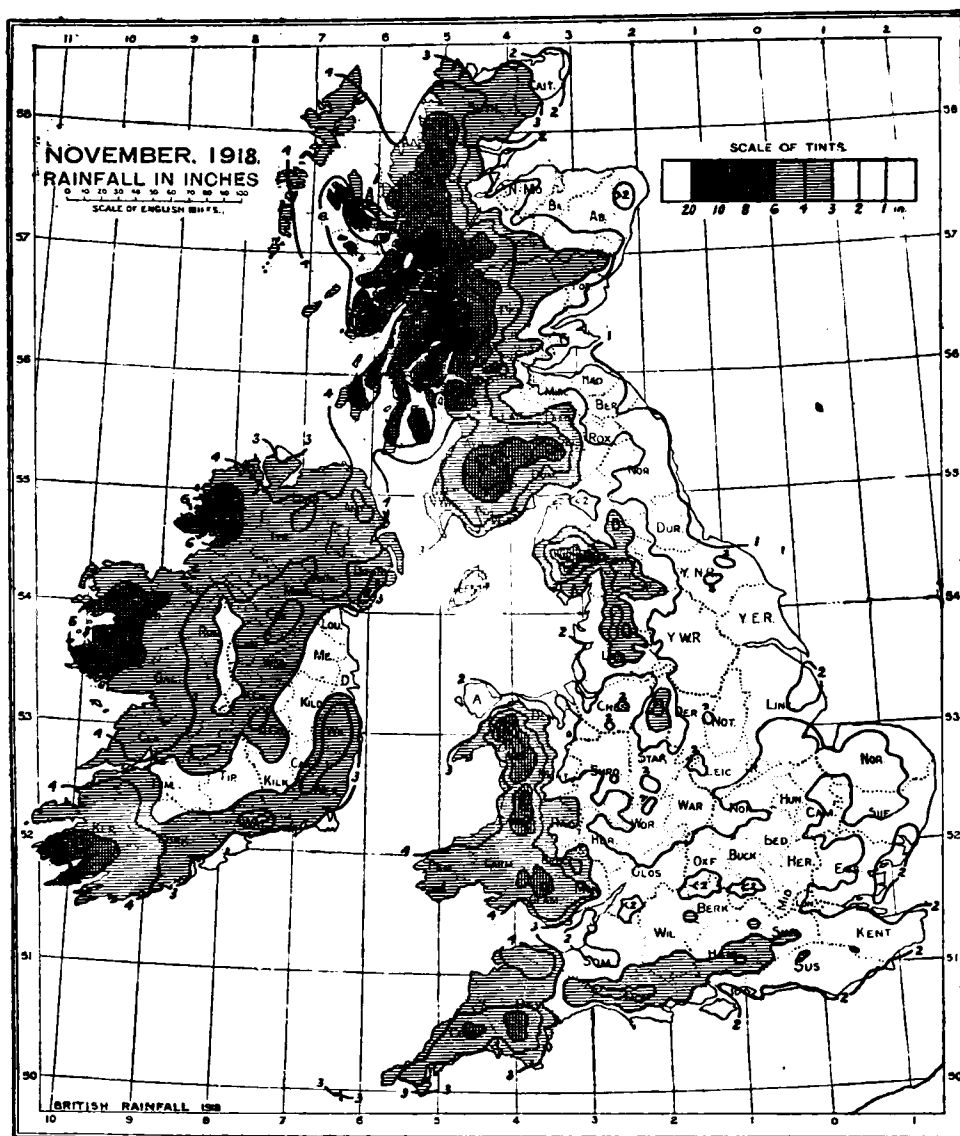


October.—Dull and unsettled weather with a normal temperature prevailed, and with wind mainly from the south-west the rainfall was excessive in the west and deficient in the east. The greater part of England had less than 2 inches of rain and more than 3 inches was confined to the hilly districts, but this amount fell very much more widely in Wales, Scotland and Ireland. Towards the west and especially the north-west the rainfall increased rapidly and the areas with more than 6 inches in England and Wales were normal except in the Devon-Cornwall peninsula. In Scotland the 6-inch areas were abnormally large, covering practically the western half; they were also more extensive than usual in Ireland. More than 10 inches also fell widely in all very rainy districts.

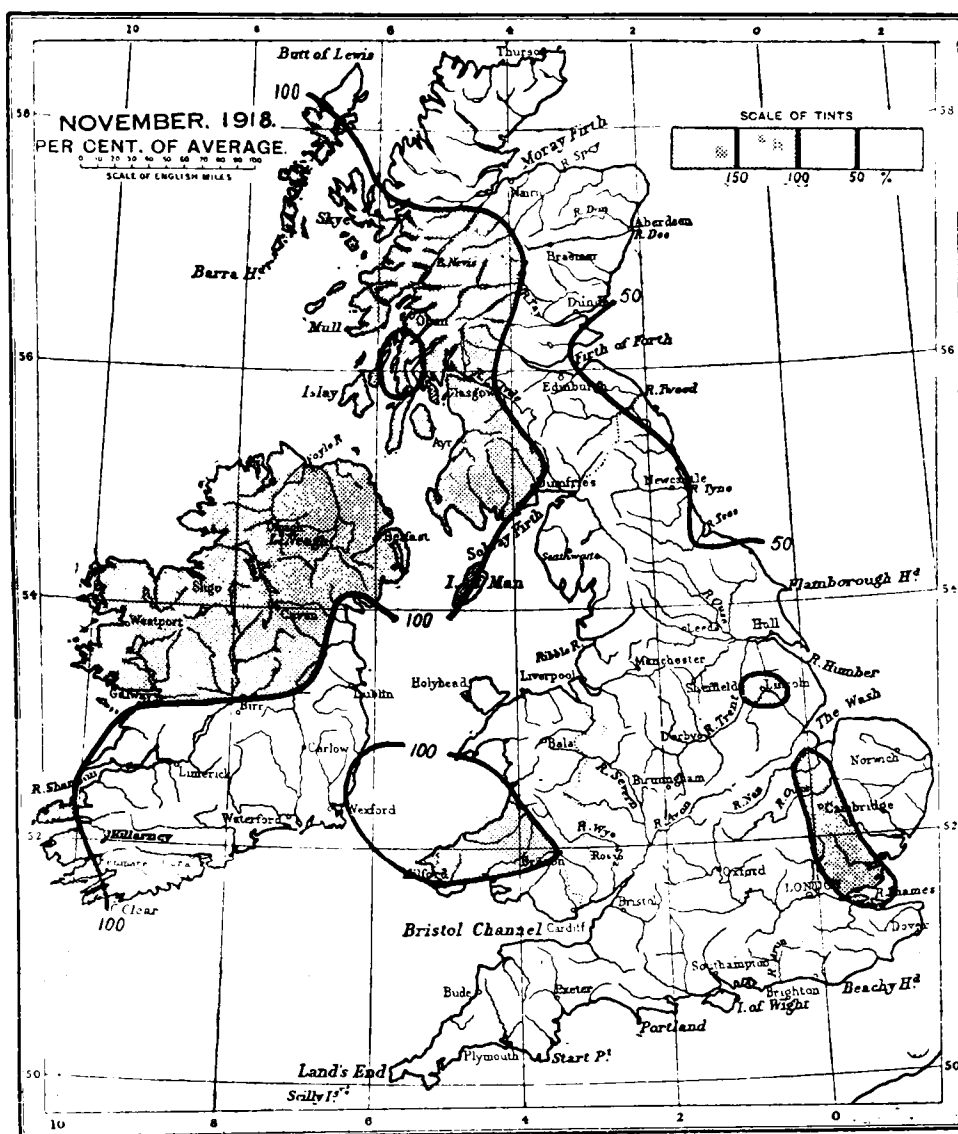


The rainfall exceeded the average over nearly the whole of Ireland and Scotland, the exceptions being the easterly districts and the excess rose to more than 50 per cent. in the west. The north-west of England and the shores of the Irish Sea also had rather more than the average fall. Three areas in England, occupying roughly the north-east, centre and south, had less than half their average rainfall, but there was an increase nearly to the average on the coast of East Anglia.

The general fall exceeded the average by 35 per cent. in Scotland and by 26 per cent. in Ireland, but was deficient by 23 per cent. in Wales and 33 per cent. in England. For the British Isles there was an excess of 1 per cent.



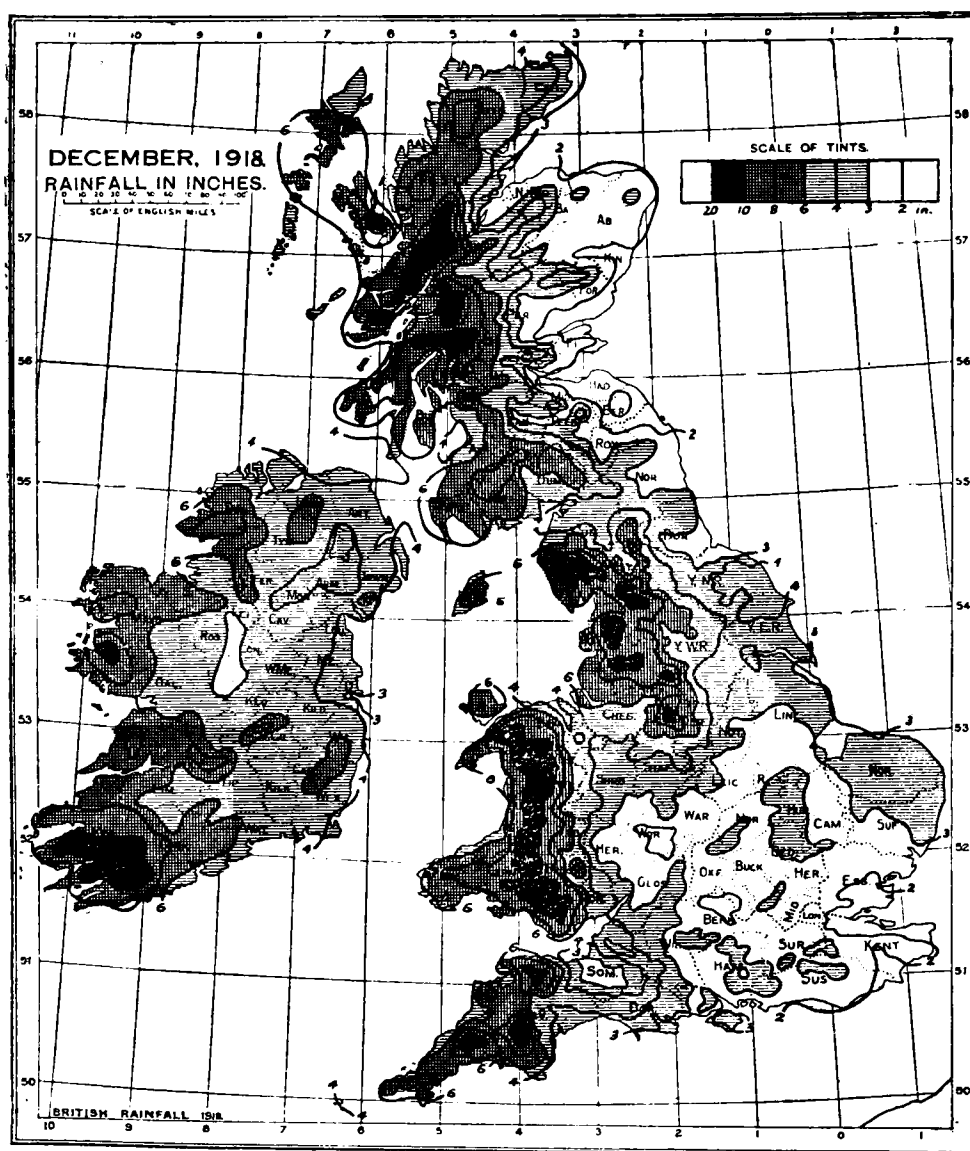
November was a damp and foggy month with somewhat low temperature in spite of the prevalence of south-westerly winds. The rainfall was fairly normal in distribution and generally rather deficient in amount. Less than 2 inches fell over large areas in the east of Great Britain and the north Midlands of England, and less than 1 inch on the north-east coast from Berwick to Saltburn. In the east of Ireland the fall was not much below 2·50 in. The western half of Scotland and the north-western half of Ireland had more than 4 inches, but in England and Wales 4 inches and upwards was confined to the mountain districts except in the south-west. The 4-inch areas on the Pennines were unusually restricted. In the extreme west of Great Britain the mountain rainfall was larger and more



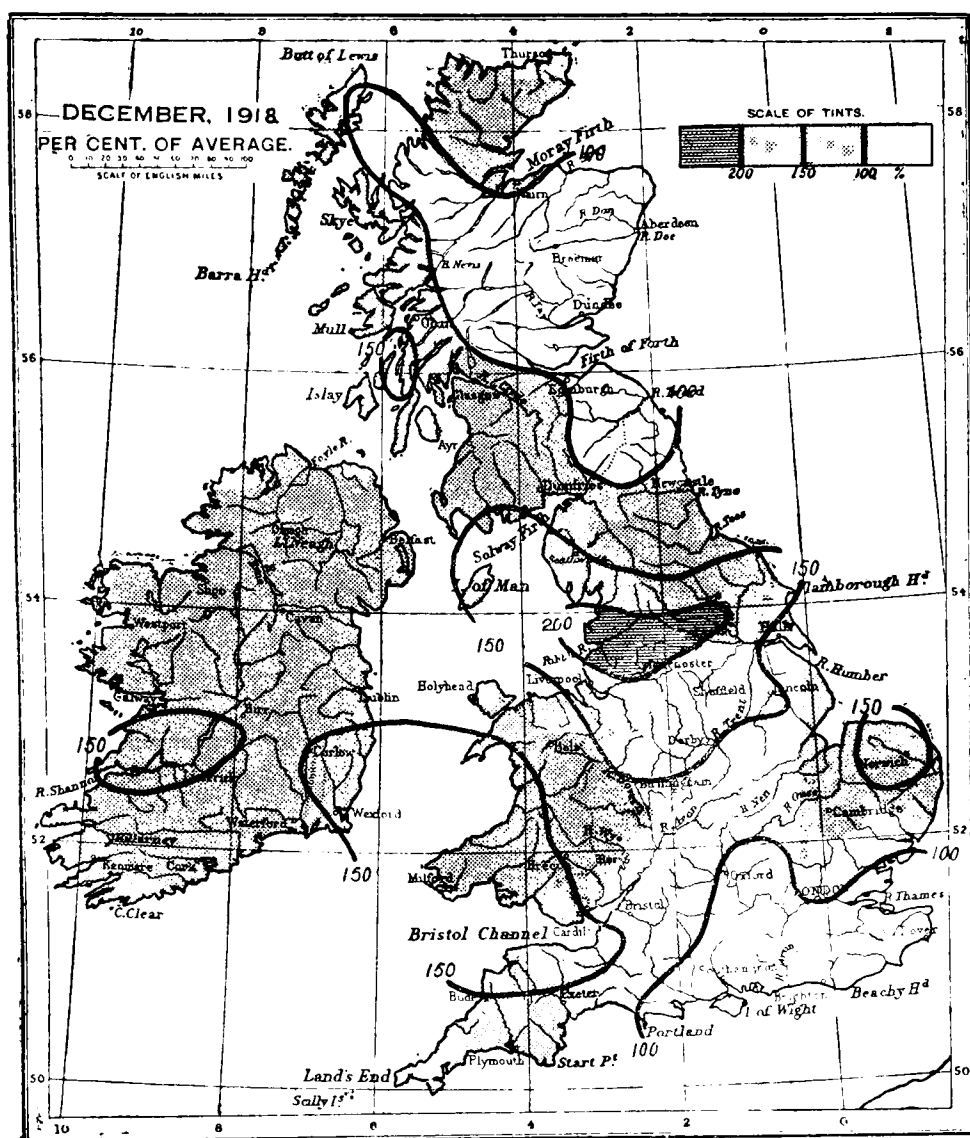
than 10 inches was recorded on Plynlimon, on Snowdon, in the English Lakes and the rainy area in the Highlands.

More than the average rainfall was observed in the south-west of Scotland and the north-west of Ireland, and the total just exceeded the average in a few small areas in South Wales and the east Midlands. The driest district was between the Firth of Forth and Whitby, where the deficiency slightly exceeded 50 per cent.

Ireland and Scotland had general falls in excess of the average by 8 and 3 per cent. respectively ; in Wales there was a deficiency of 16 per cent., and in England of 23 per cent. For the country as a whole, the general fall was 7 per cent. below the average.



December.—With a preponderance of south-westerly and westerly winds, December was mild, rainy and unsettled, with frequent, but not, as a rule, very heavy rain. Less than 2 inches fell round the Thames Estuary, and along most of the east coast of Scotland and less than 3 inches over a large area in the south-east of England. The east coast of England, from Tynemouth to Harwich, was, however, slightly wetter. More than 4 inches fell practically everywhere in the west and over almost the whole of Ireland, and more than 6 inches in all upland districts. The west Highlands had a normal fall for the season, but the areas with more than 10 inches in England, Wales and the south-west of Ireland, were more extensive than usual.



The rainfall was below the average in the east and centre of Scotland and the south-east of England, but nowhere by more than 40 per cent. It exceeded the average by more than 50 per cent. over large areas in the north Midlands and north of England, in South Wales, and in the counties of Clare and Norfolk. A narrow strip lying across Lancashire and the centre of the West Riding of Yorkshire, had rather more than twice its average rainfall.

The general rainfall exceeded the average in all the greater divisions of the country, but in Scotland only by 4 per cent. The excess in Ireland was 35 per cent., in England 37 per cent., and in Wales, 51 per cent. For the British Isles, as a whole, there was an excess of 28 per cent.

TABLE I.—*Monthly Rainfall in 1918: the Average, 1875-1909, being taken as 100.*

Div.	Station.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Year.
I.	St. Pancras, Camden Square ..	156	67	64	186	121	57	184	71	284	45	94	110	118
II.	Tenterden, View Tower	150	47	42	69	107	47	162	39	278	68	78	75	96
"	Edenbridge, Falconhurst	134	66	46	195	94	44	255	48	238	55	68	87	106
"	Patching	146	51	76	145	102	40	192	88	289	45	56	86	106
"	Fordingbridge, Oaklands	168	85	61	119	74	50	219	105	238	48	92	93	109
III.	Sherborne St. John	172	70	44	165	63	35	258	45	254	44	76	90	106
"	Royston, Therfield	153	49	50	230	89	38	90	35	320	48	100	106	103
"	Oxford, Magdalen College	154	62	41	196	98	47	169	41	231	64	86	97	105
"	Wellingborough, Swanspool	85	66	38	158	117	23	111	30	224	54	87	105	91
IV.	March	129	80	55	143	127	28	142	43	290	64	107	120	110
"	Shoeburyness	206	60	71	147	106	38	274	97	255	77	112	75	126
"	Bury St. Edmunds, Westley	132	58	36	228	130	43	158	52	270	84	88	141	117
"	Geldeston	178	53	50	225	52	107	159	77	247	95	57	149	114
"	Holkham Hall	174	95	38	201	74	68	163	103	275	70	77	163	121
V.	Bishops Cannings	135	62	51	172	98	58	237	71	235	58	96	121	115
"	Evershot, Melbury House	125	70	68	63	59	62	188	64	212	47	83	103	95
"	Ashburton, Druid House	130	78	50	87	45	60	169	79	307	55	95	128	106
"	Barnstable	149	87	61	118	76	47	155	146	282	47	86	162	120
"	Falmouth Observatory	125	106	59	74	53	37	107	69	247	76	77	141	102
"	Altarnon Sanctuary	129	99	53	85	45	72	160	108	259	67	86	145	110
VI.	E. Harptree, Sherborne Res. ..	137	106	62	112	72	56	182	76	305	61	76	150	116
"	Stroud, Field Place	130	70	65	110	82	39	107	59	268	34	79	108	94
"	Church Stretton, Wolstaston ..	124	107	79	71	108	40	109	36	275	42	53	156	96
"	Malvern, Church Street	129	66	73	152	76	43	116	46	250	41	72	102	94
"	Ryton-on-Dunsmore	120	77	98	153	89	26	187	37	180	56	77	130	100
VII.	Belvoir Castle	100	94	44	93	77	15	148	49	177	49	75	100	85
"	Revesby	109	81	37	102	139	53	100	53	169	50	82	149	92
"	Lincoln, Skellingthorpe Hall ..	100	107	57	74	88	59	99	71	183	50	109	158	94
"	Mickleover Manor	106	116	88	68	136	32	126	106	301	44	79	163	112
VIII.	Middlewich, Bostock Hall	75	110	68	54	120	58	126	92	231	39	84	169	104
"	Stonyhurst College	91	181	48	56	64	73	116	100	300	111	80	226	126
"	Southport, Hesketh Park	113	140	54	57	154	73	139	77	275	88	62	215	123
IX.	Sheffield W.W., Redmires Res. ..	96	110	66	59	98	42	112	51	301	59	49	165	99
"	Wetherby, Ribston Hall	121	154	72	73	188	33	146	98	329	47	67	224	126
"	Hull, Pearson Park	107	93	46	85	104	19	138	86	202	37	65	134	91
"	Leyburn, Bolton Hall	126	165	51	46	100	33	213	113	296	73	61	146	116
"	Scarborough, Osgodby	124	81	52	73	146	31	165	82	231	33	56	183	102

TABLE I.—*Monthly Rainfall in 1918: the Average, 1875-1909, being taken as 100—(continued).*

Div.	Station.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Year.
IX.	Middlesbrough, Albert Park ..	113	127	49	87	50	27	150	59	239	55	43	139	92
X.	Newcastle-on-Tyne, Town Moor	144	77	56	78	82	75	138	49	265	75	56	146	98
"	Rothbury, Cragside	167	64	37	72	111	26	114	41	136	72	57	81	80
"	Carlisle, Spital Cemetery	128	143	31	26	88	36	113	81	262	120	71	120	105
"	Appleby, Castle Bank	144	134	51	65	69	67	140	130	322	137	81	124	126
"	Rydal, High Close	117	208	49	31	52	70	124	88	245	156	74	160	122
XI.	Abergavenny, Larchfield	127	60	78	100	71	54	125	58	293	43	96	121	100
"	Ystalyfera, Wern School	124	122	72	70	73	79	170	42	260	89	97	171	116
"	Cardiff, Ely	131	66	100	87	56	73	170	79	291	55	80	150	113
"	Haverfordwest	116	87	97	74	62	60	153	75	211	105	102	156	112
"	Aberystwyth, Gogerddan	81	135	107	52	191	73	120	81	255	99	102	174	123
"	Birmingham W.W., Tyrmynydd	99	120	71	55	104	75	117	45	263	66	71	146	102
"	Wrexham, Pack Saddle Res. ..	91	130	49	112	141	78	123	85	298	45	74	149	110
"	Llandudno	88	130	44	59	199	64	101	50	278	63	56	123	101
"	Holyhead	125	138	60	69	162	74	157	38	256	114	63	141	115
"	Douglas	125	167	71	72	116	76	97	54	268	109	97	175	122
XII.	Auchencairn, Torr House	170	180	81	33	91	66	113	105	193	131	98	167	124
"	Drumlanrig Castle	157	186	48	27	114	41	123	140	205	189	135	120	131
"	Hawick, Braxholme	110	128	21	49	86	31	78	61	243	136	77	60	90
XIII.	North Esk Reservoir	65	122	35	38	62	51	76	57	175	135	61	109	84
"	Marchmont House	114	107	47	41	97	20	95	51	214	94	41	80	83
XIV.	Airdrie, Hillend Reservoir	121	178	47	31	94	36	78	82	162	129	85	109	99
"	Girvan, Pinmore	106	165	38	28	85	72	102	129	128	133	114	122	107
"	Loch Thom	102	203	64	40	108	64	105	87	125	183	139	119	116
XV.	Lochgilphhead, Poltalloch	105	204	46	72	126	91	122	105	139	182	178	161	133
"	Islay, Eallabus	87	159	54	86	95	76	105	98	167	142	131	136	116
"	Mull, Quinish	70	209	61	76	117	90	120	118	108	139	121	127	115
XVI.	Loch Leven Sluice	79	160	31	31	133	16	124	53	156	93	53	70	83
"	Loch Dhu	105	206	52	32	116	65	114	81	142	159	119	93	110
"	Blair Atholl	49	163	47	36	188	34	206	64	156	140	99	83	105
"	Dundee, Eastern Necropolis	100	102	53	46	175	39	195	68	164	98	62	62	98
XVII.	Fettercairn, The Burn	137	132	66	29	177	55	296	69	119	78	78	73	102
"	Braemar	69	165	23	45	123	42	249	68	166	109	91	67	100
"	Aberdeen, Cranford House	126	59	68	16	77	78	214	114	164	80	60	69	95
"	Gordon Castle	161	81	50	98	85	89	155	101	181	51	59	92	100
XVIII.	Glenquoich	56	203	30	36	43	106	119	138	168	191	116	109	113
"	Drumnadrochit	106	146	28	76	136	95	149	91	160	126	109	78	109

TABLE I.—*Monthly Rainfall in 1918: the Average, 1875-1909, being taken as 100—(continued).*

Div.	Station.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Year.
XVIII.	Inverness, High School.....	113	113	36	67	97	86	173	116	139	109	81	100	106
"	Fort William, Atholl Bank....	93	192	38	37	82	102	95	93	118	155	119	82	104
"	Loch Torridon, Bendamph....	124	188	54	48	63	101	168	151	129	155	87	93	116
XIX.	Stornoway.....	107	139	73	36	86	135	162	179	181	105	94	98	116
"	Dunrobin Castle.....	118	116	50	51	80	70	238	140	138	53	98	134	110
XX.	Wick.....	74	104	63	65	69	89	207	183	156	60	73	123	108
"	Glanmire, Lota Lodge.....	100	174	110	49	96	33	171	58	207	82	70	129	106
"	Killarney, District Asylum....	160	150	69	42	70	87	116	63	200	133	82	138	114
"	Valencia, Glanleam.....	135	151	97	41	97	50	155	67	180	138	113	143	118
"	Waterford, Brook Lodge.....	102	120	97	63	114	65	97	81	250	100	91	127	110
"	Nenagh, Castle Lough.....	87	198	84	31	109	63	169	116	233	161	91	165	128
XXI.	Ennistymon House.....	76	138	79	44	76	56	166	112	194	158	91	163	118
"	Gorey, Courtown House.....	135	127	86	77	96	50	92	80	288	107	103	181	120
"	Abbey Leix, Blandford.....	85	184	91	60	107	66	121	70	187	105	92	143	109
"	Dublin, Fitz William Square....	75	98	52	92	110	46	106	71	236	82	95	111	97
"	Mullingar, Belvedere.....	93	151	95	74	77	69	129	58	183	127	110	123	107
XXII.	Greenore.....	91	133	76	51	104	56	131	68	153	82	83	140	98
"	Tuam, Gardenfield.....	117	169	57	47	77	49	115	95	179	169	117	99	110
"	Crossmolina, Enniscoe.....	114	169	36	47	81	55	148	100	177	150	113	125	113
"	Cong, The Glebe.....	124	181	62	34	74	43	114	77	196	145	127	129	113
XXIII.	Markree Observatory.....	118	193	51	47	74	90	99	65	226	137	115	149	116
"	Belturbet, Cloverhill.....	96	158	58	58	74	83	120	57	233	135	116	117	109
"	Armagh Observatory.....	124	177	57	54	96	39	107	73	199	136	146	126	111
"	Seaforde.....	146	160	49	44	103	50	143	99	155	99	119	130	110
"	Belfast, Queen's University....	97	186	36	64	117	53	115	99	201	88	134	143	112
"	Ballymena, Harryville.....	98	179	44	74	76	74	121	112	209	112	144	128	117
"	Limavady, Drenagh.....	87	129	32	82	105	86	106	118	155	118	103	120	105
"	Omagh, Edenfel.....	83	191	51	56	95	68	104	75	207	145	113	129	111
"	Killybegs.....	71	139	47	43	67	87	93	102	190	140	118	130	106
	England (Mean of 43 Stations)	129	102	55	105	91	47	152	74	256	67	77	137	107
	Wales (" 9 ")	110	109	77	74	111	71	139	61	264	77	84	151	111
	Scotland (" 27 ")	100	167	48	45	99	71	139	103	154	135	103	104	108
	Ireland (" 23 ")	107	159	65	54	90	62	123	84	200	126	108	135	112
	British Isles (" 103 ")	112	138	57	72	95	60	140	84	211	101	93	128	109

MONTHLY RAINFALL AT 300 STATIONS IN THE BRITISH ISLES DURING 1918.

ENGLAND.

Div.	County.	Station.	Jan.	Feb.	March.	April.	May.	June.	July.	August.	Sept.	Oct.	Nov.	Dec.	Total.
I.	London	St. Pancras (Camden Sq.)	2.86	1.11	1.09	3.24	2.11	1.30	4.74	1.78	5.68	1.23	2.21	2.34	29.69
II.	Surrey	Warlingham (Redvers Rd.)	3.62	1.76	1.27	4.84	2.21	.91	5.48	1.23	5.69	2.52	2.72	3.15	35.40
"	"	Haslemere (Hazelhurst) ...	4.30	2.38	1.53	4.03	1.54	1.08	4.45	1.24	6.30	1.96	3.53	3.63	35.97
"	"	Woking (The Grange).....	3.34	1.08	.90	3.86	2.09	1.53	5.64	.88	5.43	1.44	2.50	2.06	30.75
"	Kent	Tenterden (View Tower)...	3.21	.89	.91	1.23	1.76	.96	3.59	.94	6.26	2.35	2.39	2.08	26.47
"	"	Folkestone (Cherry Gardens)	3.16	1.10	1.21	1.04	2.07	1.16	4.02	1.13	5.35	3.21	2.36	2.44	28.25
"	"	St. Peter's Court	2.71	.66	.76	1.27	1.75	.91	3.48	1.45	4.56	2.47	2.30	1.73	24.05
"	"	Ospringe (Lorenden)	2.82	.71	1.06	2.00	1.63	.79	2.69	.66	4.58	2.61	2.44	2.05	24.04
"	Sussex	Patching	3.80	1.10	1.48	2.64	1.83	.85	4.73	2.22	7.46	1.80	2.00	2.35	32.41
"	"	Balcombe (The Gables) ...	4.15	1.63	1.17	3.42	1.21	1.41	7.08	1.35	5.52	2.17	2.69	3.55	35.15
"	"	Eastbourne (Wilmington Sq)	3.71	1.18	1.14	2.64	1.87	.78	3.78	1.90	6.19	2.77	2.36	2.50	30.82
"	"	Crowborough (Uckfield Ldg.)	4.31	1.58	1.25	3.69	1.66	1.22	5.77	1.94	6.37	3.09	2.61	3.58	37.07
"	Hampshire	Totland Bay (Aston House)	2.93	1.17	1.04	1.74	1.33	1.02	3.28	1.81	5.05	1.91	2.47	2.68	26.43
"	"	West Dean Rectory.....	4.13	1.41	1.04	2.56	1.68	.79	6.01	2.59	5.21	1.84	2.89	2.48	32.63
"	"	Bps. Waltham(Swanmore Ho.)	4.61	2.03	1.39	2.37	2.02	1.16	5.68	1.98	7.52	1.90	3.28	3.55	37.49
"	"	Sherborne St. John Rec....	3.99	1.55	.91	3.16	1.21	.80	6.25	1.16	5.66	1.54	2.25	2.50	30.98
III.	"	St. Albans(County Museum)	2.63	1.15	.71	4.24	2.22	.94	3.35	1.27	5.49	1.84	2.53	2.93	29.30
"	"	Royston (Therfield Rec.)...	2.53	.80	.83	3.86	1.80	.89	2.48	.96	6.32	1.30	2.35	2.14	26.26
"	Buckinghamshire	Slough (Upton).....	3.17	1.02	.79	3.77	2.83	.88	4.39	1.22	6.01	1.47	2.20	2.20	29.95
"	"	Hampden House	2.71	1.07	.62	4.22	2.29	1.06	3.41	1.54	5.42	1.56	2.51	2.54	28.95
"	"	Buckingham (Adstock Fields)	2.52	1.37	.55	3.45	2.11	.63	3.01	1.38	5.32	1.31	1.92	2.52	26.09
"	Oxfordshire	Oxford (Magdalen College)	2.74	1.00	.60	3.27	1.77	1.07	4.12	.99	4.58	1.80	1.94	1.99	25.87
"	"	Goring (Elmcroft)	2.50	.99	.75	3.64	1.52	.54	5.40	1.33	5.11	1.90	1.98	1.71	27.37
"	"	Wellingboro' (Swanspool)..	1.62	1.12	.65	2.82	2.32	.49	2.81	.71	4.77	1.40	1.94	2.24	22.89
"	Northamptonshire	St. Ives (Slepe House)	2.06	.98	.59	2.79	1.72	.35	3.42	1.47	5.38	1.17	2.13	1.87	23.93
"	Huntingdonshire	Shillington	2.54	.84	.47	3.53	2.82	.85	2.95	.85	5.20	1.40	1.88	1.89	24.95
"	Bedfordshire	Littleport (Highfield Ho.) ...	1.97	.95	.48	1.90	2.85	.36	2.80	1.21	5.61	1.19	1.62	2.24	23.18
"	Cambridgeshire	Wisbech (Bank House) ...	2.00	1.12	.65	1.98	1.90	.40	3.25	1.26	5.52	1.80	2.03	2.76	24.67
IV.	"	Epping (The Hemnalls) ...	3.35	1.44	1.08	4.03	2.80	1.12	6.00	2.79	4.80	2.22	2.47	2.84	34.94
"	Essex	Rayleigh(Wheatley's Farm)	2.89	.70	.81	2.12	1.42	.69	5.34	1.39	4.24	2.01	1.89	1.63	25.13

ENGLAND—(continued.)

Div.	County.	Station.	Jan.	Feb.	March.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
IV.	Essex	Bradwell-on-Sea (Bradwell Hall)	2.97	.38	.75	1.84	1.27	1.18	4.86	1.53	3.14	1.82	2.12	2.06	23.92
"	"	Shalford (Littles)	2.30	.47	.90	2.61	1.77	.91	4.50	.83	3.61	1.88	2.15	2.25	24.18
"	Suffolk	Hawkedon Rectory	2.08	.86	.84	3.66	2.27	.81	5.44	1.42	4.69	2.76	1.92	2.94	29.69
"	"	Haughley (Haughley Ho.)	2.00	.73	.70	2.90	1.97	1.94	3.54	1.54	3.78	2.35	1.99	2.66	26.10
"	"	Orford (The Gables)	2.44	.97	.70	2.61	1.51	1.71	7.34	.94	4.73	2.60	1.62	3.42	30.59
"	"	Burgh Hall [Yarmouth]	2.38	.90	.83	2.80	.68	.96	4.16	2.11	4.32	2.96	1.43	3.28	26.81
"	Norfolk	Diss (The Cedars)	2.46	.70	.63	3.87	1.15	1.11	3.36	1.17	3.01	2.41	1.78	3.19	24.84
"	"	Aylsham (Rippon Hall)	2.02	1.19	.69	2.95	1.13	1.43	3.58	2.65	4.94	2.75	2.00	3.75	29.08
"	"	Sandringham House	3.03	1.52	.74	3.23	2.76	.69	2.57	2.24	6.09	1.87	1.99	3.78	30.51
"	"	Watton	2.75	1.21	.77	2.16	1.84	1.25	3.94	2.02	6.43	2.31	2.57	4.36	31.61
V.	Wiltshire	Calne (High Street)	3.28	1.47	1.01	2.78	1.97	.96	5.44	1.84	6.65	1.64	2.06	2.60	31.70
"	"	Mere (Charnage)	3.97	1.86	1.07	1.86	1.47	1.18	6.42	2.40	6.03	1.74	2.61	3.61	34.22
"	"	Salisbury Plain (Shrewton)	4.19	1.25	.90	2.65	2.00	1.18	7.67	1.71	5.08	1.67	2.64	2.86	33.80
"	"	Marlborough (Mildenhall)	3.48	1.27	.98	3.30	1.92	.88	5.63	1.69	6.71	1.97	2.36	2.74	32.93
"	Dorsetshire	Wareham (Binnegar Hall)	3.79	1.74	1.59	2.01	1.95	1.52	4.59	2.19	6.62	2.10	2.79	3.31	34.20
"	"	Beaminstor (Hamilton Lodge)	4.42	2.32	2.29	2.09	1.48	1.48	5.51	2.39	7.11	2.69	4.07	3.05	40.90
"	"	Wimborne (Codford House)	4.16	1.65	1.34	1.93	1.60	.89	4.87	2.31	5.98	1.97	3.20	3.35	33.25
"	"	Salcombe (Sandhills)	3.68	1.76	1.94	1.15	1.24	.76	3.14	1.66	5.94	2.68	2.39	3.91	30.25
"	South Devonshire	Princetown (H.M. Prison)	10.17	3.48	3.00	3.27	2.44	3.97	6.39	5.72	13.91	6.64	7.08	15.00	86.07
"	"	Teignmouth (Den Gardens)	3.88	1.30	1.30	1.81	1.53	1.04	4.64	1.90	6.07	1.49	3.05	3.36	31.37
"	"	Cullompton	5.44	1.82	1.82	2.10	1.43	1.11	4.36	3.37	7.46	1.98	3.01	4.83	38.73
"	"	Chumleigh (Leigh House)	5.35	2.23	1.40	2.39	.88	1.17	4.55	4.39	8.63	2.03	2.95	6.44	42.41
"	North	Barnstaple (N.Devon Athenæum)	4.79	2.43	1.50	2.60	1.64	1.04	4.42	4.78	8.86	2.23	3.39	6.77	44.45
"	"	Okehampton (Oaklands)	6.81	3.62	1.99	2.86	1.49	1.47	4.37	2.97	9.10	2.92	3.97	7.65	49.22
"	"	Redruth (Trewirgie)	4.92	3.31	2.41	2.24	1.03	1.39	3.76	1.63	7.18	4.74	4.40	7.37	44.38
"	Cornwall	Morwenstow Vicarage	4.58	2.89	1.89	2.16	1.10	1.55	4.81	3.61	9.02	3.27	3.76	6.15	44.79
"	"	Penzance (Morrah Garden)	4.61	2.50	1.81	1.99	1.12	1.08	3.80	1.56	7.87	3.49	3.64	7.41	40.91
"	"	St. Austell (Trevarna)	4.97	3.61	1.77	2.63	1.11	1.46	5.10	2.60	7.95	4.13	4.63	7.59	47.55
"	"	Altarnon Sanctuary	7.14	4.92	2.32	3.19	1.39	2.22	6.36	5.17	11.48	4.72	5.28	10.75	64.94
"	"	Street (Ilind Hayes)	3.34	.99	1.00	1.95	1.78	.89	4.54	3.21	4.89	1.68	1.94	3.26	29.47
"	Somersetshire	Burnham (Chalbury)	3.01	1.55	1.04	1.96	1.26	1.03	5.07	2.25	6.87	1.91	2.15	3.14	31.24
"	"	Winsford School	8.01	4.17	2.04	4.36	1.49	1.75	6.34	4.16	11.47	3.50	5.40	9.93	62.62
"	"	Stroud (Field Place)	3.03	1.48	1.30	2.30	1.72	.96	2.95	1.70	6.40	1.09	2.18	2.94	28.05
VI.	Gloucestershire	Mickleton (Bank House)	2.54	.89	1.03	3.06	1.34	.70	2.96	.82	5.22	1.44	1.70	1.94	23.64
"	"	Clifton (Harley Place)	3.98	2.58	1.76	2.78	2.21	1.30	5.86	3.00	10.21	1.93	1.98	4.91	42.50
"	"	Lechlade (Claydon House)	3.04	1.32	.84	2.71	1.75	.81	3.59	1.61	4.79	1.47	1.83	2.53	26.29

ENGLAND—(continued.)

Div.	County.	Station.	Jan.	Feb.	March.	April.	May.	June.	July.	August.	Sept.	Oct.	Nov.	Dec.	Total.
VI.	Herefordshire	1 Ross (Birchlea).....	2.73	1.09	1.39	1.83	1.95	.78	2.74	1.87	6.12	1.15	2.16	2.70	26.51
"	Shropshire.....	3 Ludlow (Ashford House)...	2.98	1.47	1.88	2.68	3.34	1.01	3.59	1.32	7.17	1.62	2.39	3.55	33.00
"	"	3 Bishops Castle Vicarage ...	3.04	2.55	1.68	1.89	2.21	.98	3.50	1.47	6.41	1.79	1.68	4.09	31.29
"	"	3 Much Wenlock (WilleyPk.)...	2.12	1.44	1.41	1.56	2.36	1.35	3.86	1.32	5.44	1.57	2.08	2.87	27.38
"	"	4 Oswestry (The Mount Res.)...	3.19	2.32	1.14	1.75	2.47	1.01	4.66	1.55	6.63	2.00	1.62	4.21	32.55
"	Staffordshire	2 Market Drayton(OldSprings)	1.69	2.09	1.47	1.73	2.60	1.19	3.20	2.67	5.65	1.45	1.82	4.09	29.65
"	"	3 Shugborough.....	2.17	2.23	1.53	1.65	2.15	1.12	4.61	2.51	8.09	1.87	1.77	2.77	31.87
"	"	4 Burton (Shobnall)	1.91	1.65	1.35	1.27	2.65	.67	2.66	2.20	4.90	1.62	1.52	3.70	26.10
"	"	5 Mayfield Ho. [Ashbourne]	2.36	2.59	1.75	1.22	2.60	1.06	4.12	2.39	8.04	1.87	2.09	5.61	35.70
"	Worcestershire	2 Worcester (Belmont Road)	1.12	.99	1.32	2.27	1.77	.74	1.90	1.09	4.58	.86	1.55	1.76	19.95
"	"	2 Dudley(BoroughCemetery)	1.88	1.10	1.27	2.43	2.49	.83	2.66	2.44	6.27	1.08	1.93	2.91	27.29
"	Warwickshire	1 Wormleighton Hall.....	2.42	1.42	.88	2.95	1.60	1.01	3.97	.92	4.50	1.59	1.85	2.78	25.89
"	"	1 Coventry(KeresleyGrange)	2.51	1.48	1.47	2.70	1.92	1.16	3.91	1.47	5.07	1.76	1.74	3.31	28.50
VII.	Leicestershire	2 Market Harboro' (Rose Hill)	2.77	1.55	.77	2.57	1.38	.40	2.76	1.16	4.06	1.35	2.23	2.29	23.29
"	"	4 Loughboro' (NanPantonRes.)	2.29	1.62	1.33	2.08	2.30	.72	2.40	1.88	5.04	1.32	1.65	2.99	25.62
"	"	4 Belvoir Castle	1.73	1.59	.74	1.70	1.67	.31	3.79	1.32	3.92	1.44	1.66	2.29	22.16
"	Lincolnshire	2 Stamford (St. George's Sq.)	1.88	1.04	.71	1.85	1.76	.38	2.41	.97	4.36	1.42	2.05	1.92	20.75
"	"	3 Boston (Black Sluice, Skirbeck)	1.68	1.57	.60	1.74	3.59	.81	2.86	1.27	4.21	1.91	2.11	2.62	24.97
"	"	3 Sleaford(KestevenCo.Asylum)	1.74	1.54	.61	1.39	2.38	.36	2.21	1.75	3.71	1.46	2.04	2.49	21.68
"	"	3 Willingham-by-Stow	1.53	1.55	.72	1.04	2.13	.90	3.47	1.99	4.12	1.24	2.07	3.77	24.53
"	"	4 Louth (Westgate).....	2.45	1.21	1.22	2.17	2.26	.51	3.20	1.97	4.31	1.39	1.92	3.46	26.07
"	"	6 Burton-upon-Stather Vic...	1.28	1.66	.96	1.46	2.53	.61	4.17	3.35	4.04	1.43	1.78	3.16	26.43
"	Nottinghamshire	5 Mansfield (West Bank) ...	2.12	1.92	1.20	1.61	2.44	.50	2.75	1.79	5.60	1.24	1.81	3.53	26.51
"	Derbyshire	6 Buxton (Devonshire Hospital)	3.92	5.96	2.32	2.15	3.19	2.48	4.06	3.47	10.18	3.10	3.16	8.86	52.85
VIII.	Cheshire	1 Wythenshawe Hall	1.87	3.57	1.42	1.14	2.05	1.55	3.45	2.62	7.67	2.37	1.35	5.64	34.70
"	"	2 Middlewich (Bostock Hall)	1.66	2.03	1.30	.93	2.61	1.49	3.68	3.07	6.11	1.29	2.18	4.76	31.11
"	"	4 Eccleston	1.51	1.20	.72	1.23	3.26	1.02	3.76	1.97	5.37	1.35	1.61	4.08	27.08
"	South Lancashire...	1 Liverpool (Huyton Vic.)...	2.32	2.71	1.40	1.17	2.84	1.77	4.67	2.45	7.60	2.90	2.05	6.98	38.86
"	"	3 Bolton (Smithills Hall) ...	4.35	5.61	2.21	1.21	2.71	2.23	3.71	4.54	14.20	5.57	3.64	10.59	60.57
"	Central	1 Burnley (Swinden)	3.36	6.09	2.00	1.29	2.42	2.48	3.21	3.66	10.91	4.03	3.34	7.87	50.66
"	"	1 Stonyhurst College	3.71	6.02	1.69	1.41	1.80	2.37	4.83	5.20	12.62	5.21	3.54	10.59	58.99
"	"	3 Southport (Hesketh Park)	2.87	2.89	1.13	1.04	3.28	1.66	4.06	2.88	8.49	3.28	1.97	6.68	40.23
"	North	4 Lancaster (Strathspey) ...	4.19	4.25	1.66	1.12	2.19	2.08	4.85	4.04	9.49	4.10	2.55	7.51	48.03
IX.	Yorkshire, W.R.	2 Settle (Gas Works)	4.84	6.63	1.71	1.30	2.07	1.79	4.27	4.02	11.29	4.69	2.86	8.65	54.12
"	"	7 Sheffield (Weston Park) ...	2.84	2.87	1.44	1.38	2.72	.58	4.09	1.75	7.06	1.97	1.56	4.56	32.62

ENGLAND—(continued).

Div.	County.	Station.	Jan.	Feb.	March.	April.	May.	June.	July.	August.	Sept.	Oct.	Nov.	Dec.	Total.
IX.	Yorkshire, W.R. ...	7 Doncaster (Avenue Road)	1.49	1.57	.86	1.14	2.62	.87	3.39	2.18	4.34	1.60	1.39	2.97	24.42
"	"	8 Melham(HarewoodLodge)	4.25	7.91	1.79	1.35	3.27	1.77	3.30	2.04	13.83	3.15	2.47	8.62	53.75
"	"	9 Garforth (Manor Farm) ...	1.55	2.12	1.03	.89	2.67	1.29	2.98	1.48	6.25	1.53	1.08	4.29	27.16
"	"	10 Ilkley (St. James' Road)..	3.28	4.62	1.71	.80	4.34	1.02	3.97	2.25	8.56	3.19	1.25	6.38	41.37
"	"	10 York (Mount Villas)	1.91	2.32	1.17	1.00	2.81	.98	2.85	2.32	7.40	1.28	1.73	4.39	30.16
"	E.R. ...	2 Birdsall Gardens	2.08	2.32	1.09	1.60	1.92	.91	4.20	2.24	5.61	1.53	1.85	4.34	30.29
"	"	3 Patrington	1.34	1.11	1.07	1.56	1.62	.20	2.46	2.99	3.53	1.39	1.38	3.23	21.88
"	"	3 MarketWeighton(DaltonHolme)	1.61	1.96	1.25	1.46	2.22	.59	4.16	3.00	5.81	1.45	1.65	3.64	28.80
"	"	4 Bridlington	2.14	1.98	1.26	1.77	2.54	.64	2.70	1.95	4.74	1.18	1.41	4.40	26.71
"	"	1 Leyburn (Bolton Hall) ...	3.42	4.02	1.46	1.00	2.21	.64	5.55	3.37	6.93	2.89	2.09	4.74	38.02
"	"	2 Felixkirk (Mount St. John)	2.23	1.97	1.20	1.50	2.48	1.13	3.41	2.25	5.19	1.74	1.53	3.50	28.13
"	"	5 Whitby (Mulgrave Castle)	1.69	1.50	1.29	1.76	2.29	.65	3.05	1.97	4.81	2.23	1.49	3.58	26.31
"	"	6 Middlesbrough(Albert Pk.)	1.65	1.62	.74	1.31	1.00	.51	3.85	1.71	4.38	1.64	.98	2.76	22.15
X.	Durham	1 BarnardCastle(CountySchool)	3.34	3.05	1.00	.88	1.61	.34	3.54	3.42	6.47	2.20	1.85	3.74	31.44
"	"	2 Wearhead Station.....	4.16	6.88	2.15	1.40	1.77	1.10	4.94	2.66	9.90	5.35	3.00	5.00	48.37
"	"	2 Ushaw (St. Cuthbert's College)	3.90	1.80	2.20	2.50	2.49	.72	5.20	1.93	6.52	2.93	1.71	3.71	35.61
"	Northumberland ...	2 Haltwhistle(BellisterCastle)	3.56	3.10	1.07	1.20	1.83	.83	4.58	2.70	7.82	4.02	2.02	3.35	36.08
"	"	3 Corbridge (Howden Dene)	2.42	2.07	1.03	1.20	1.92	.85	3.12	2.87	5.12	2.75	1.28	2.59	27.22
"	"	4 Bellingham(High Green Manor)	4.08	2.70	1.22	.96	1.48	.65	4.29	2.66	5.72	4.82	1.74	2.91	33.23
"	"	5 Morpeth (Bothalgaugh) ...	2.76	1.42	1.17	1.23	3.03	.63	2.80	1.49	5.01	2.27	.95	2.42	25.18
"	"	5 Alnwick Castle.....	3.70	1.10	.93	2.73	3.23	.39	3.27	1.46	5.32	3.54	1.18	2.52	29.37
"	"	6 Ilderton (Lilburn Cottage)	2.76	1.06	.75	1.17	2.02	.44	3.59	1.19	5.39	3.44	1.35	2.15	25.31
"	Cumberland	1 Penrith (Benson House) ...	3.85	4.01	.88	.74	1.79	.99	4.00	5.06	8.96	3.68	3.40	3.82	41.18
"	"	1 Wigton (Brookfield).....	3.21	3.00	1.20	.84	2.24	1.35	3.26	3.46	8.15	5.45	2.16	3.01	37.33
"	"	3 Whitehaven (Irish Street)..	4.29	4.35	2.07	.98	2.44	1.70	3.37	4.27	10.22	5.98	3.15	7.58	50.40
"	"	4 Silecroft (Old Chappels)...	6.12	6.29	2.60	1.30	2.44	2.59	4.54	4.79	11.47	6.11	4.02	11.05	63.32
"	Westmorland	1 KirkbyStephen(RedmanHo.)	5.16	5.63	1.52	1.65	1.76	1.14	6.35	3.99	9.40	5.67	3.24	4.92	50.43
"	"	2 Mickleden.....	18.45	23.04	7.09	3.65	3.25	5.04	9.05	12.36	26.32	27.80	13.92	31.45	181.42
"	"	3 Kendal (Crosthwaite Vic.)	7.86	6.37	2.33	1.33	2.52	2.49	6.36	4.32	13.81	7.60	3.18	10.20	68.37
England. Mean of 130 stations			3.33	2.36	1.30	2.16	2.05	1.11	4.17	2.30	6.68	2.62	2.43	4.33	34.84

MONMOUTH, WALES AND THE ISLANDS.

XI.	Monmouth.....	3 Abergavenny (The Chain)..	4.27	2.04	2.36	2.71	1.72	1.92	3.21	2.05	8.43	1.66	4.26	4.76	38.69
"	"	4 Chepstow (Piercefield Pk.)	3.57	2.62	2.04	2.71	2.22	1.05	4.96	2.18	8.97	2.22	2.79	4.21	39.54

MONMOUTH, WALES AND THE ISLANDS—(continued.)

Div.	County.	Station.	Jan.	Feb.	March.	April.	May.	June.	July.	August.	Sept.	Oct.	Nov.	Dec.	Total.
XI.	Glamorgan	Swansea (The Knoll)	5.63	3.91	3.02	1.99	2.18	1.72	4.53	3.36	10.99	5.23	4.40	8.40	55.36
"	"	Treherbert (Tyn-y-waun)	8.73	9.47	4.88	3.27	2.65	4.09	9.43	4.70	17.64	7.44	8.87	18.74	99.91
"	"	Cardiff (Roath Park)	4.93	2.55	2.43	2.22	1.53	2.25	5.29	3.09	10.53	3.12	3.29	7.30	48.53
"	Cardarthen	Cardarthen (The Friary) ..	5.60	3.48	2.70	2.38	1.70	1.32	5.80	3.54	9.76	5.59	4.28	8.73	54.88
"	"	Llanwrda (Dolaucothy) ..	6.98	5.10	3.70	2.13	4.09	2.93	5.23	2.65	11.32	5.39	5.18	9.02	63.72
"	Pembroke	St. David's	2.61	3.10	2.51	1.37	1.15	1.01	3.70	4.58	6.79	3.93	4.69	5.71	41.15
"	"	Tenby (Glendower)	5.10	3.40	2.54	2.15	1.42	1.37	4.52	2.92	8.25	4.97	4.53	9.14	50.31
"	Cardigan	Aberystwyth (North Parade)	2.51	2.83	2.33	1.16	4.19	1.49	3.72	2.24	8.66	3.89	2.89	5.22	41.13
"	"	Birmingham W.W. (Claerddu)	6.60	8.20	4.30	2.25	5.65	4.50	5.75	4.25	13.45	7.20	7.90	13.55	83.60
"	Brecon	Brecon (New Inn)	6.82	3.60	5.44	2.36	2.85	1.64	5.88	1.54	10.30	4.29	4.87	7.69	57.28
"	"	Gwernyfed Park [Glasbury]	2.75	1.49	1.60	2.30	2.69	.53	3.55	1.51	6.53	1.66	1.51	3.44	29.56
"	Radnor	Llandrindod Wells (Kimberley)	4.26	3.56	2.20	2.08	3.47	1.06	4.15	2.13	7.45	3.33	2.79	6.24	42.72
"	Montgomery	Newtown (Penarth Weir)	2.88	2.65	1.83	1.83	2.59	.75	3.20	1.64	8.31	2.25	2.48	4.67	35.08
"	"	Lake Vyrnwy (Bank Cynon Isaf)	5.21	9.12	2.07	2.19	4.04	2.00	5.78	2.57	13.27	5.45	3.75	11.15	66.60
"	Flint	Mostyn Vicarage	1.62	2.99	1.01	1.57	3.48	2.65	3.21	2.89	6.95	2.92	2.20	6.41	37.90
"	Denbigh	Pentre Voelas (Nant Heilyn) ..	4.30	6.35	1.67	2.01	4.60	3.28	4.36	2.79	10.14	4.18	3.25	8.36	55.29
"	Merioneth	Dolgelly (Bryntirion)	4.72	6.95	4.24	2.24	5.27	4.49	4.02	4.03	14.72	6.18	6.64	9.23	72.73
"	Carnarvon	Llandudno	2.20	2.74	.94	1.06	3.70	1.26	2.54	1.57	6.95	2.38	1.80	3.50	30.64
"	"	Abersoch	4.36	3.90	2.54	1.57	4.51	2.42	4.54	2.50	10.69	4.30	3.47	6.89	52.19
"	"	Snowdon (Teyrn)	17.15	23.10	9.40	3.12	7.60	8.37	11.10	9.89	28.88	29.25	10.93	30.33	189.12
"	Anglesey	Llanerchymedd (Llwydiarth Esgob)	3.35	3.23	1.86	1.93	3.24	2.08	4.91	2.55	8.51	3.88	2.23	6.86	44.63
Wales. Mean of 23 stations			5.05	5.06	2.94	2.11	3.32	2.32	4.93	3.09	10.77	5.27	4.31	8.68	57.85
XI.	Isle of Man	Douglas (Borough Cemetery)	4.48	5.12	2.02	1.76	2.86	1.90	3.12	2.14	9.61	5.14	4.33	8.23	50.71

SCOTLAND.

XII.	Wigtown	Stoneykirk (Ardwell Ho.)	4.07	3.92	1.24	1.08	3.55	1.95	2.34	3.54	5.92	4.24	3.72	7.50	43.07
"	"	Whithorn (Cutroach)	4.75	4.86	1.54	.69	2.40	1.09	2.48	3.22	5.35	4.80	3.08	6.87	41.13
"	Kirkcudbright	Dalry (Glendarroch)	8.72	9.18	2.08	.92	2.32	1.47	4.54	4.19	7.30	7.27	7.26	7.35	62.60
"	"	Dalbeattie (Kirkennan) ..	6.69	5.94	2.72	.67	2.85	2.02	4.49	4.19	7.01	6.92	4.31	7.24	54.80
"	Dumfries	Dalton (Kirkwood)	5.63	5.63	1.96	.67	2.79	1.60	4.89	4.46	7.80	6.38	3.05	5.82	50.68
"	"	Moffat (Auchen Castle) ..	7.11	8.25	1.56	.74	2.36	1.49	3.95	3.42	7.30	8.56	6.17	6.47	57.38
"	"	Langholm (Ewes, Burnfoot)	3.65	4.83	1.45	.80	2.45	1.19	3.71	3.32	7.25	6.94	3.10	4.78	43.47
"	Roxburgh	Hawick (Wolfelee)	5.53	3.56	1.03	.93	2.60	.73	3.25	2.11	6.98	5.86	2.78	2.72	33.08
XIII.	Selkirk	Selkirk (The Hangingshaw)	3.80	2.59	.45	.65	2.40	.44	4.04	1.73	6.28	2.70	2.94	2.06	30.08
"	Peebles	Stobo Castle	2.73	4.35	.91	.70	2.92	1.40	2.17	2.43	5.95	5.17	3.95	2.44	35.12
"	Berwick	Marchmont House	2.73	2.31	1.23	.93	2.46	.47	3.14	1.81	5.72	3.59	1.32	2.26	27.97

SCOTLAND—(continued.)

Div.	County.	Station.	Jan.	Feb.	March.	April.	May.	June.	July.	August.	Sept.	Oct.	Nov.	Dec.	Total.
XIII.	Haddington	Garvald (Donolly Reservoir)	3.57	2.30	1.25	1.95	2.78	.86	3.14	1.85	3.90	3.86	2.48	1.50	29.44
"	Midlothian	West Calder (Addiewell)...	2.14	4.76	.63	1.06	2.38	.88	2.69	2.03	4.47	4.97	2.50	3.68	32.19
XIV.	"	Edinburgh (Royal Obsy.)	2.13	2.47	.50	.62	2.93	.42	3.56	1.57	4.40	2.78	1.31	1.50	24.19
"	Lanark	Leadhills	8.72	9.69	2.76	1.28	3.76	2.69	3.79	4.98	9.27	8.13	7.58	7.93	70.58
"	"	Strathaven (E. Overton Ho.)	3.92	6.69	1.59	.80	2.38	1.27	2.71	2.98	6.31	6.69	3.63	4.61	43.58
"	Ayr	Dalry (Blair)	6.23	5.57	1.89	.64	2.91	1.14	4.50	2.81	6.32	5.96	5.41	5.48	48.86
"	"	Maybole (Knockdon Farm)	3.77	5.10	1.32	.48	2.44	1.41	2.47	3.72	6.49	6.40	5.06	4.69	43.35
"	"	Colmonell (Knockdolian)	3.71	5.54	1.25	.70	2.83	1.93	2.92	3.70	5.11	6.80	5.71	6.49	46.69
"	"	New Cumnock (Ayr Sanatorium)	5.45	7.65	1.18	.96	2.27	2.00	2.67	3.51	8.47	8.33	7.90	6.17	56.56
XV.	Dumbarton	Cardross (Kilmahew)	5.08	6.67	1.60	.81	2.28	.14	3.51	3.74	5.75	6.06	6.07	4.51	47.22
"	Stirling	Falkirk (Westbank)	4.55	5.05	1.28	.69	2.22	.49	3.47	2.78	5.23	4.71	2.89	3.49	36.85
"	"	Kippen (Argomery)	3.77	6.73	1.37	.79	2.70	.72	2.96	3.11	6.81	6.36	5.32	4.67	45.31
"	Bute	Rothsay (Ardencraig)	5.73	7.41	2.37	1.39	4.38	1.90	4.15	3.86	6.25	7.58	7.80	7.24	60.06
"	Argyll	Morvern (Kingairloch)	11.87	16.18	4.46	1.97	4.41	4.79	6.65	8.18	12.76	15.81	12.14	15.49	114.71
"	"	Glenleven (Kinlochleven)...	11.33	13.69	2.87	1.53	2.54	4.22	5.01	7.61	10.41	13.65	10.86	10.05	93.77
"	"	Connell Ferry (Ach-na-cloich)	4.69	7.71	1.92	1.30	2.76	3.26	4.48	5.33	5.80	10.27	8.23	8.30	64.05
"	"	Loch Awe (Ford)	5.33	9.03	2.58	2.58	3.84	3.69	4.85	6.11	7.86	10.93	10.65	9.23	76.68
"	"	Muasdale (Killeen Manse)	3.08	5.30	1.32	1.20	3.22	1.69	2.89	3.16	5.92	5.76	5.77	5.75	45.06
"	"	Ardishaig (Canal Office)	5.76	9.01	1.84	1.57	3.00	3.59	4.09	5.11	8.01	8.86	8.49	8.83	68.16
"	"	Lochgoilhead (Nuthill)	7.48	12.18	2.53	1.53	3.98	2.75	4.71	5.50	7.95	9.09	9.39	9.60	76.69
"	"	Islay (Ardbeg)	4.67	5.12	1.58	1.69	2.57	1.93	3.45	5.11	7.35	5.95	5.58	7.40	52.40
"	"	Jura (Ardfin)	7.34	7.09	2.17	1.60	3.40	2.25	3.46	4.38	8.09	7.33	6.66	8.99	62.76
"	"	Iona	3.19	5.97	1.61	1.29	2.44	2.15	3.80	4.70	4.81	6.40	5.51	5.96	47.83
"	"	Mull (Quinish)	3.88	9.32	2.59	2.26	3.49	2.96	4.96	5.88	5.61	8.14	7.58	8.40	65.07
"	"	Colinsburgh (Balcares)	2.58	2.62	1.28	.67	4.02	.83	4.41	1.79	3.93	2.82	1.28	1.38	27.61
"	Fife	Cupar (Kinross Asylum)	2.13	1.72	1.11	.56	3.38	.43	4.47	1.88	3.34	2.78	1.84	1.83	25.47
XVI.	"	Balquhidder (Stronvar)	7.80	13.13	2.65	1.42	2.96	3.65	3.75	4.20	8.03	11.62	9.49	7.33	76.03
"	Perth	Glendevon (Tormaukin)	4.81	7.94	2.82	1.58	3.55	1.56	5.34	4.33	7.01	8.57	4.06	4.69	58.93
"	"	Grieff (Strathearn Hydro.)	2.09	3.90	1.04	.90	2.84	.74	4.70	3.27	5.18	4.25	3.34	2.99	37.96
"	"	Aberfeldy (Dall Avon)	3.73	4.75	.68	.66	3.43	.69	5.34	1.92	4.52	4.16	4.86	2.87	35.97
"	"	Loch Rannoch (The Barracks)	1.90	2.26	.86	.87	3.08	.82	4.05	3.48	6.02	6.10	7.75	4.80	50.17
"	"	Coupar Angus	1.89	2.37	1.31	.52	3.60	.66	4.55	2.36	3.34	2.51	2.10	1.48	28.37
"	Forfar	Arbroath (Muirheads Res.)	2.83	5.65	1.54	1.10	3.27	1.09	6.62	4.32	4.34	4.53	4.55	4.46	26.37
"	"	Glen Prosen (Balnaboth Grds.)													44.30

SCOTLAND—(continued.)

Div.	County.	Station.	Jan.	Feb.	March.	April.	May.	June.	July.	August.	Sept.	Oct.	Nov.	Dec.	Total.
XVII.	Kincardine	Fettercairn (The Burn) ...	3·65	3·33	1·76	·71	4·08	1·24	6·82	2·44	3·36	2·80	2·71	2·50	35·40
"	"	Crathes (Pinewood).....	2·70	1·66	1·66	·54	2·86	·95	5·33	2·03	3·76	2·87	2·72	1·71	28·79
"	Aberdeen	Braemar (Derry Lodge) ...	3·05	4·63	·87	1·48	3·12	1·71	5·52	3·17	5·19	3·71	3·19	3·86	39·50
"	"	Aberdeen (Cranford House)	2·98	1·39	1·79	·36	1·85	1·57	6·42	3·50	4·42	2·59	1·99	2·36	31·22
"	"	Strathdon Estate Office ...	3·29	2·00	1·30	1·25	1·86	1·31	4·38	2·68	3·98	2·50	2·13	2·86	29·54
"	"	New Deer School House...	2·88	1·12	1·50	·81	1·15	2·59	6·42	3·10	6·43	1·96	2·12	2·90	32·98
"	"	Huntly (Cruchie).....	4·26	1·09	1·56	·94	1·55	2·15	5·30	5·02	5·72	3·01	1·42	2·50	34·52
"	Moray	Gordon Castle	3·21	1·58	1·19	1·71	1·78	1·89	5·02	3·33	4·66	1·73	1·68	2·50	30·28
"	"	Grantown-on-Spey	3·14	2·34	1·10	2·04	1·59	1·87	6·25	2·34	4·31	2·73	2·04	3·30	33·05
"	Nairn	Nairn (Achareidh)	2·48	2·26	·68	1·48	2·27	1·85	5·92	2·43	2·71	2·10	1·91	2·43	28·52
"	Inverness	Kingussie	2·35	3·47	1·57	1·17	2·86	·85	5·83	2·57	5·36	4·01	4·68	3·13	37·85
"	"	Fort Augustus (S. Benedict's)	3·41	7·43	·81	·71	2·16	1·82	4·25	3·44	5·47	7·09	5·57	4·54	46·70
"	"	Loch Quoich (Glenquoich)	7·63	19·92	2·93	1·97	2·46	5·50	8·05	11·33	15·53	20·00	13·27	14·84	123·53
"	"	Drumnadrochit	3·84	4·22	·88	1·40	3·18	2·14	5·03	2·83	4·70	4·39	3·72	2·95	39·28
"	"	Arisaig House	5·56	7·74	2·52	1·63	2·53	4·05	7·29	6·97	7·64	9·06	7·87	7·96	70·82
"	"	Fort William (Atholl Bank)	8·55	13·14	2·41	1·34	3·22	3·83	4·65	5·69	7·88	11·33	8·95	7·72	78·71
"	"	Skye (Kyleakin)	4·17	11·03	2·87	2·27	2·94	2·83	6·27	5·55	6·21	8·70	6·33	5·93	65·10
"	"	Skye (Dunvegan)	7·20	11·26	3·32	2·69	3·21	4·16	5·84	11·39	9·03	10·54	7·73	9·69	86·06
"	"	Barra (Castle Bay)	2·76	3·03	1·09	·90	1·14	1·77	3·38	3·93	3·02	3·13	3·20	3·98	31·33
"	"	South Uist (Ushenish)	3·90	4·41	1·48	·61	·86	2·47	2·00	6·58	4·16	7·15	3·67	5·95	43·24
"	Ross and Cromarty	Alness (Ardross Castle)	4·60	3·82	1·29	1·04	1·94	1·70	6·69	2·85	5·34	3·12	2·96	4·42	39·77
"	"	Ullapool (Inverpollly Ldg.)	3·07	4·11	2·35	1·13	1·10	3·00	8·18	3·85	5·39	5·76	6·69	4·07	48·70
"	"	Loch Torridon (Bendamph)	11·53	14·19	3·94	2·26	2·85	4·10	8·97	9·98	9·39	13·02	7·74	9·07	97·04
"	"	Poolewe (Inverewe Gdns.)	4·43	7·37	2·85	1·63	1·71	3·75	6·40	9·47	7·86	8·11	5·25	6·25	65·08
"	"	Glencarron Lodge	7·08	11·09	2·86	2·47	2·11	5·19	6·07	9·31	9·03	10·10	6·79	7·64	79·74
"	"	Stornoway.....	5·47	5·83	2·81	·95	2·14	3·28	4·76	6·83	7·22	5·67	5·23	5·82	56·01
XIX.	Sutherland.....	Dunrobin Castle	3·24	3·00	1·32	1·04	1·75	1·46	6·93	3·79	3·45	1·68	3·17	4·13	34·96
"	"	Tongue Manse	4·17	2·86	1·96	2·26	1·75	3·00	5·67	5·28	4·91	2·66	2·47	4·64	41·63
"	"	Melvich Schoolhouse	3·35	2·94	1·29	1·30	1·43	2·95	5·93	4·39	4·18	1·95	3·10	4·70	37·51
"	"	Loch More (Achfary)	6·95	7·39	2·79	3·03	1·84	6·35	7·94	9·76	8·99	9·39	5·21	8·18	77·82
"	Caithness	Berriedale (Langwell)	5·21	2·78	1·62	1·39	·99	1·92	6·66	4·02	4·88	1·69	3·44	3·27	37·87
"	"	Thurso (Buckies)	7·42	2·93	1·64	1·41	1·94	2·77	6·26	5·18	4·52	2·82	3·11	4·60	44·60
"	Orkney	Pomona (Houton Bay) ...	1·92	3·50	1·72	1·36	1·18	2·12	5·01	4·99	4·63	3·32	3·24	5·29	38·28
Scotland. Mean of 78 stations			4·74	5·93	1·75	1·22	2·60	2·11	4·80	4·33	6·14	6·07	4·90	5·32	49·91

IRELAND.

Div.	County.	Station.	Jan.	Feb.	March.	April.	May.	June.	July.	August.	Sept.	Oct.	Nov.	Dec.	Total.
XX.	Cork	Castletownshend (Seafield)	4.32	5.39	2.31	1.67	2.03	1.10	4.26	2.04	8.20	4.54	4.48	8.31	48.65
	"	Clonakilty (Shannon Vale Ho.)	4.24	4.99	2.84	2.04	1.93	1.07	5.09	1.89	8.15	4.77	3.38	7.01	47.40
	"	Dunmanway (The Rectory)	7.76	8.79	3.78	1.96	2.58	1.58	5.92	3.01	9.31	7.20	5.17	12.41	69.47
	"	Middleton (Ballynacurra) ...	3.50	4.51	3.35	1.59	2.49	1.03	4.26	2.72	5.72	2.97	2.87	4.89	39.90
	"	Mallow (Summer Hill) ..	5.85	6.39	4.40	1.18	2.16	1.16	4.10	2.05	6.31	3.67	3.10	7.07	47.44
	"	Mitchelstown Castle	4.58	5.56	2.69	1.37	2.24	1.12	3.96	3.43	6.22	3.99	2.78	5.99	43.93
	"	Killarney (District Asylum)	9.51	7.47	3.11	1.45	2.15	2.54	4.10	2.89	7.59	7.41	4.52	9.56	62.30
	"	Darrynane Abbey.....	6.08	5.76	3.10	2.37	2.36	1.85	5.35	4.51	7.94	6.37	5.69	5.92	57.30
	"	Kenmare (Dromore)	8.27	9.20	3.18	2.22	3.43	2.49	5.49	2.70	10.01	8.43	6.55	12.12	74.09
	"	Lismore Castle.....	4.43	6.04	1.55	1.32	2.81	1.70	4.29	2.75	6.84	5.04	3.10	6.35	46.22
	"	Waterford (Brook Lodge) ..	3.87	3.83	2.55	1.70	2.65	1.80	3.03	3.02	7.97	4.01	3.46	5.50	43.39
	"	Nenagh (Traverston)	3.49	6.39	2.98	1.51	2.65	1.84	4.16	3.93	8.05	6.60	4.08	7.98	53.66
	"	Clonmel (Bruce Villa).....	3.66	5.31	2.21	1.51	2.12	1.31	3.50	2.44	7.18	3.33	3.07	4.81	40.45
	"	Cashel (Ballinamona)	3.89	4.84	2.23	1.37	2.08	1.57	3.57	2.80	6.03	3.66	2.58	5.36	39.48
	"	Roscrea (Timoney Park)...	2.60	3.95	2.45	1.61	2.53	1.83	4.15	4.17	6.31	3.29	2.94	5.05	40.88
XXI.	"	Abbeylea (Springmount)	2.82	4.27	2.14	1.22	1.94	2.26	5.32	2.68	7.32	4.52	4.03	6.03	44.55
	"	Ennislymon House	5.26	4.74	2.55	1.23	2.06	1.77	5.94	5.60	8.20	6.96	4.21	8.21	54.73
	"	Derravoher [Limerick] ...	2.52	3.98	2.38	.98	2.61	1.68	4.25	3.68	9.45	3.76	1.86	5.58	41.66
	"	Killadysert (Paradise Hill)	2.67	4.03	2.41	1.18	2.53	2.11	6.13	3.21	8.38	5.45	4.63	7.56	51.36
	"	Newmarket-on-Fergus (Carrigoran) ..	3.06	4.01	2.14	1.15	3.13	1.29	5.31	3.44	8.05	5.49	4.07	6.49	47.86
	"	Mountshannon (Woodpark)	3.11	5.37	2.75	1.03	2.37	1.36	4.69	4.47	7.52	5.37	3.84	7.98	49.86
	"	Foulkesmill (Longraigue) ..	4.23	4.26	2.22	1.68	2.31	1.64	3.48	2.51	8.50	4.65	3.54	5.60	45.62
	"	Enniscorthy (Ballyhyland)...	3.55	4.55	2.57	1.87	2.81	1.63	4.31	2.80	8.33	5.30	4.27	6.02	48.01
	"	Gorey (Courtown House) ..	4.29	3.50	1.97	1.83	2.14	1.29	2.67	2.66	8.01	4.01	3.50	6.20	42.07
	"	Kilkenny (Lavistown Ho.)	2.56	3.41	1.96	1.47	2.49	1.32	3.22	2.65	6.15	2.79	2.33	3.42	33.77
	"	Wicklow	4.71	5.25	2.13	2.05	2.64	1.71	3.98	2.18	6.71	4.08	4.37	6.12	45.93
	"	Rathdrum (Avondale)	4.00	3.52	1.70	2.04	2.62	1.20	3.00	1.36	5.19	3.22	3.05	4.30	35.20
	"	Greystones	3.61	4.19	2.02	1.56	2.83	2.26	3.65	2.74	5.95	4.09	3.97	5.57	39.01
	"	Hacketstown Rectory	2.68	4.70	2.35	1.52	2.60	1.70	3.62	2.76	5.47	3.70	3.02	4.89	42.44
	"	Abbey Leix (Blandsfort)...	2.12	3.58	1.99	1.00	1.67	2.31	4.10	2.46	5.33	3.43	2.96	4.49	35.44
"	"	Ballycumber (Moorock Lodge)	2.00	3.22	1.61	1.47	2.60	1.52	3.37	3.81	5.03	3.16	2.82	3.98	34.59
	"	Monasterevan (Moore Abbey)	2.22	3.12	1.71	1.51	1.95	1.52	3.15	2.44	5.87	3.64	2.69	3.88	33.70
	"	Straffan House	2.65	2.97	1.27	1.56	2.52	1.47	3.20	2.23	4.91	2.77	2.27	3.30	31.12
	"	Balbriggan (Ardgillan) ...	2.75	3.03	1.23	1.46	2.67	1.68	2.82	2.70	5.72	3.02	2.47	3.56	33.11
"	"	Mullacrogha [Drogheda]	2.96	4.07	1.80	1.46	2.67	1.84	3.68	1.85	6.54	4.37	3.55	5.06	39.85
"	"	Athboy (Frankville).....													

IRELAND—(continued).

Div.	County.	Station.	Jan.	Feb.	Mar.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
XXI.	Westmeath	Mullingar (Belvedere).....	2.88	4.04	2.51	1.76	1.93	1.89	4.07	2.32	5.52	4.05	3.72	4.16	38.85
"	"	Castlepollard (Pakenham Hall)	2.80	4.26	2.09	1.77	2.48	1.92	4.42	2.44	6.03	4.00	4.39	4.38	40.98
"	Louth.....	Greenore	2.43	3.03	1.71	1.14	2.45	1.44	3.69	2.34	4.13	2.35	2.59	4.29	31.59
"	Longford	Ballymahon (New Castle)	3.37	4.40	2.26	1.12	2.26	1.51	5.15	3.01	5.10	3.79	3.11	4.72	39.80
XXII.	"	Castle Forbes Gardens ...	3.38	4.22	1.71	1.22	1.72	1.58	2.83	2.08	6.11	4.85	3.77	4.53	38.00
"	Galway ..	Ballinahinch Castle.....	6.34	7.43	2.37	1.28	3.23	2.60	6.18	6.80	7.55	7.18	7.38	7.70	66.04
"	"	Tuam (Gardenfield).....	4.63	5.35	1.85	1.21	2.18	1.41	3.62	4.23	6.33	6.68	5.02	4.63	47.14
"	"	Woodlawn.....	2.40	3.38	1.76	.98	2.22	1.16	3.77	4.00	6.56	3.71	3.77	4.64	38.35
"	Roscommon	Strokestown (Castlenode)	3.70	4.16	1.29	.86	1.66	1.33	2.65	2.04	6.12	4.15	3.41	4.08	35.45
"	Mayo.....	Crossmolina (Enniscroe) ...	6.10	7.10	1.56	1.47	2.58	1.74	4.81	4.66	7.83	7.92	6.48	7.67	59.92
"	"	Westport House	4.87	5.77	1.87	1.02	2.29	1.55	4.05	3.04	7.87	6.85	6.25	6.25	51.68
"	"	Aasleagh House	12.06	9.28	3.93	2.03	3.80	5.14	7.27	9.65	11.19	13.52	8.66	14.96	101.49
"	"	Cong (The Glebe)	5.94	6.74	2.35	1.01	2.18	1.38	4.23	3.62	7.92	6.68	6.36	7.01	55.42
"	"	Dugort (Slievemore Hotel)	5.13	8.10	1.89	1.12	1.80	2.14	3.78	5.56	7.95	10.81	6.20	7.24	61.72
"	Sligo	Collooney (Markree Obs.)	4.57	6.17	1.62	1.18	2.06	2.79	3.31	2.78	8.24	5.78	4.62	6.45	49.57
XXIII.	Leitrim	Lough Allen Sluices	3.46	4.18	.91	.53	.88	1.19	1.47	1.39	5.15	4.11	2.98	5.89	32.14
"	Cavan.....	Killeshandra (DromMullac)	3.56	4.30	.86	1.52	1.75	1.72	4.06	2.02	7.75	5.06	3.65	5.39	41.64
"	Fermanagh	Enniskillen (Portora)	4.14	4.86	1.13	1.35	1.99	2.09	3.70	3.81	5.73	3.95	4.41	4.76	41.92
"	"	Belleek	3.08	4.60	1.29	1.29	2.18	2.84	3.67	3.55	8.10	6.74	5.03	6.31	48.68
"	Monaghan.....	Dartrey [Cootehill]	3.19	3.84	1.85	1.48	2.09	2.61	5.29	3.13	5.84	4.31	4.09	4.40	42.12
"	Armagh.....	Armagh Observatory	3.21	3.74	1.30	1.11	2.31	1.02	3.26	2.54	5.45	3.87	4.16	3.55	35.52
"	Down.....	Seaforde	4.98	4.49	1.39	1.21	2.81	1.43	4.76	3.61	5.05	3.62	4.58	4.89	42.82
"	"	Donaghadee (Orlock Head)	3.40	3.52	1.08	1.35	3.00	1.40	2.75	2.53	4.39	3.61	3.30	3.80	34.13
"	Antrim	Belfast (Queen's University)	2.71	4.27	.88	1.38	2.75	1.33	3.52	3.45	5.74	2.96	4.28	4.72	37.99
"	"	Glenarm Castle.....	3.85	5.00	1.14	1.25	3.12	2.30	3.36	2.53	7.37	4.26	4.91	4.71	43.80
"	"	Ballymena (Harryville) ..	3.67	5.36	1.35	1.89	2.17	2.14	4.16	4.69	7.17	4.24	5.69	5.10	47.63
"	Londonderry.....	Glenedra Lodge	4.66	7.63	1.97	2.18	3.51	3.87	4.61	6.12	8.99	6.64	6.65	7.15	63.98
"	"	Limavady (Drenagh)	2.83	3.45	.94	1.80	2.49	2.24	3.47	4.58	4.92	4.40	3.87	4.32	39.31
"	Tyrone	Omagh (Edenfel)	2.86	5.13	1.51	1.40	2.52	1.92	3.48	3.18	7.02	5.46	4.15	5.06	43.69
"	"	Sion Mills (Sion House).....	2.89	5.21	1.43	1.39	2.01	1.79	3.70	5.02	6.24	5.11	4.72	5.48	44.99
"	Donegal.....	Lettickenny (District Asy.)	3.44	5.51	1.29	1.58	2.23	2.60	3.45	4.68	7.09	5.19	4.33	5.86	47.25
"	"	Milford (The Manse)	3.09	4.90	1.44	1.33	2.04	2.61	2.78	5.18	7.36	4.56	4.19	5.42	44.90
"	"	Killybegs	4.07	6.17	2.33	1.50	2.47	3.49	4.14	5.92	9.80	8.50	7.18	8.78	64.35
Ireland. Mean of 68 stations ..			3.99	4.96	2.04	1.45	2.39	1.86	4.04	3.37	6.94	4.97	4.16	5.96	46.13
BRITISH ISLES. Mean of 300 stations			3.98	4.09	1.71	1.76	2.37	1.64	4.36	3.12	6.92	4.26	3.62	5.30	43.13

SEASONAL RAINFALL, 1917-1918.

THIS section provides a convenient link between the discussion of monthly rainfall and that of the whole year. It deals with two groups of six months, respectively, the winter and summer halves of the year ending September 30th, each a meteorological unit with definite characteristics. At the same time it is convenient to include a computation of the relation to the average of the rainfall in the whole twelve months of the "seasonal year" formed by these two periods taken in conjunction. This provides a useful and often very instructive supplement to the discussion of the civil year's rainfall in the section following.

The data utilized are the records of 103 well distributed stations, the names of which are given in the table on pp. [105] to [108], and the total rainfall at each of these stations for the six months, October, 1917, to March, 1918, and April to September, 1918, respectively, is set out in full. The table also gives the average for the same period for the 35 years 1875-1909, the difference of the current year's fall from the average and the percentage which it forms of it. For the seasonal year the percentage values alone are given for want of space.

The relation of the rainfall to the average is most conveniently studied by means of maps showing the distribution of the percentage values, and such maps have been prepared, though we do not feel justified in delaying the publication of this volume in order to reproduce them.

For the winter half-year 1917-1918 the geographical distribution is very striking and very simple. The values above 100 per cent. indicating a rainfall in excess of the average are grouped almost exclusively in the north-west of the British Isles and all those reaching or exceeding 120 per cent. lie in one great area extending from co. Galway and the coast of Cumberland in the south, to Sutherland on the north, and including the whole of the west Highlands. At intervals in this great tract the rainfall exceeded 130 per cent. of the average, and in southern Argyll and part of Co. Sligo values of 140 per cent. were reached. Towards

the east and south-east the rainfall relatively to the average rapidly diminished, falling below 90 per cent., or 10 per cent. below the average, over the greater part of the eastern half of Great Britain, the south-coast of England and the south-eastern part of Ireland. The minimum was reached in a tract which extended with some interruptions from the coast of Northumberland to Devonshire, in most of which less than 80 per cent. of the average fell. In a small patch in the East Midlands and a strip on the south coast, between Start Point and the Isle of Wight, less than 70 per cent. fell. There was a slight increase in the fall in East Anglia, and one station in Norfolk had slightly more than the average. Summing up the readings for the great divisions of the country the contrast between the east and west is to some extent masked, but it shows in a measure in the general deficiency of 11 per cent. for England and of 9 per cent. for Wales and a general excess of 9 per cent. for Ireland and 17 per cent. for Scotland. For the whole of the British Isles the dry and wet areas nearly counterbalanced one another, giving a net excess of only 3 per cent.

In the summer half-year from April to September, 1918, the condition of things was very different. The map, in place of the simple distribution which marked the winter half-year, is involved and not easy to describe. In the main there were three very wet areas lying respectively in the south of England, the north-west of England and Wales, and the north of Scotland, but nearly the whole of England, the whole of Wales and about three-quarters of Scotland and Ireland had a rainfall in excess of the average. In the wettest areas more than 130 per cent. fell over a continuous strip from mid-Devon to Norfolk, another from Aberystwyth to Scarborough, and a third from the northern Hebrides to Wick. Two small patches in the north of England just reached 140 per cent. and this was the case in North Devon, North Wiltshire and from Sussex to Norfolk. The climax of wetness relatively to the average was reached round the Thames Estuary, the stations at Camden Square and Shoeburyness giving respectively 148 and 155 per cent. Between these great wet areas small patches in the English Midlands, the most important occupying western Lincolnshire, had a rainfall slightly below the average. This was also the case in the south of Ireland, in part of the north Midlands of Ireland and in central Scotland, but it was only in Scotland that the fall was as low as 90 per cent., this being the case around the Forth Estuary and south-eastwards to the Border. The general values for the countries were all

above the average, England and Wales each having an excess of 22 per cent., Scotland of 7 per cent. and Ireland of 5 per cent. For the whole kingdom there was an excess of 13 per cent.

The seasonal year represents the combination of the two periods described above and owing to its generally higher rainfall the winter half year predominates in determining the distribution. Wet areas occupied the western and north-western districts where the winter fall was heaviest, and also a well-marked tract crossing the south of England, where the summer rainfall was at a maximum. Falls of 120 per cent. or more were found in three areas between Sligo Bay and Wick, and in the centre of this strip more than 130 per cent. fell in south-western Argyll. Part of Dumfriesshire and of the central Pennines had rather more than 120 per cent., and this was also the case in the north of Norfolk and round the Thames Estuary. Areas of deficient rainfall lay in the east of Great Britain from Kincardineshire to Lincolnshire, and from thence extended over a considerable part of the English Midlands. The fall was less than 90 per cent. of the average from Clackmannanshire to Northumberland and from the Humber to Oxfordshire. There was another dry area occupying the coast-lines from Co. Cork northward to Greenore, across the St. George's Channel to Pembrokeshire, and from Cornwall eastward to the Isle of Wight. The only part of this extended strip in which the rainfall fell below 90 per cent. of the average was in Dorsetshire. The general rainfall of the seasonal year was above the average by 4 per cent. in England, 4 per cent. in Wales, 7 per cent. in Scotland and 13 per cent. in Ireland, whilst for the British Isles as a whole there was an excess of 8 per cent.

The seasonal rainfall has now been computed on similar lines for a period of twelve years, and it is noteworthy that during the period available for review nine out of twelve winters have shown a rainfall for the country as a whole above the average, seven having an excess of 10 per cent. or more, and three of 20 per cent. or more. Of the dry winters only one had a deficiency of more than 3 per cent. On the mean of the 12 years there was an excess of 9 per cent. The summers on the other hand were preponderatingly dry, though not excessively so. Six had a deficiency, and four a deficiency of as much as 10 per cent., whilst the wet years had only moderate excesses, only two reaching as much as 10 per cent. The values for the seasonal year are somewhat colourless, and so far suggest no particular sequence or alternation.

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Seasonal Rainfall, 1917-1918, in Relation to the Average, 1875-1909.

Div.	Stations.	Winter Six Months, October, 1917-March, 1918.				Summer Six Months, April-September, 1918.				12 Months, Oct., 1917-Sept., 1918.	
		Rainfall. in.	Aver- age.	Difference from Average.	Per cent. of Aver.	Rainfall. in.	Aver- age.	Difference from Average.	Per cent. of Aver.		Per cent. of Average.
I.	St. Pancras, Camden Square.....	11.23	12.38	- 1.15	91	18.85	12.73	+ 6.12	148		120
II.	Tenterden, View Tower	13.17	15.31	- 2.14	86	14.74	12.33	+ 2.41	120		101
"	Edenbridge, Falconhurst.....	14.80	16.75	- 1.95	88	19.65	13.51	+ 6.14	146		114
"	Patching	14.42	17.17	- 2.75	84	19.73	13.31	+ 6.42	148		112
"	Fordingbridge, Oaklands	15.18	17.83	- 2.65	85	18.08	13.23	+ 4.85	137		107
III.	Sherborne St. John Rectory	12.89	15.86	- 2.97	81	18.24	13.31	+ 4.93	137		107
"	Royston, Therfield	10.55	12.02	- 1.47	88	16.31	13.54	+ 2.77	120		105
"	Oxford, Magdalen College	9.85	11.98	- 2.13	82	15.80	12.60	+ 3.20	125		104
"	Wellingborough, Swanspool	7.95	12.27	- 4.32	65	13.92	12.93	+ .99	108		87
IV.	March	9.08	10.71	- 1.63	85	15.55	12.32	+ 3.23	126		107
"	Shoeburyness	9.51	9.82	- .31	97	14.61	9.46	+ 5.15	155		125
"	Bury St. Edmunds, Westley	10.63	12.26	- 1.63	87	18.60	13.14	+ 5.46	142		115
"	Geldeston	10.64	11.91	- 1.27	89	15.52	11.82	+ 3.70	131		110
V.	Holkham Hall	11.73	11.46	+ .27	102	17.28	12.10	+ 5.18	143		123
"	Bishops Cannings	13.30	15.70	- 2.40	85	21.80	15.17	+ 6.63	144		114
"	Evershot, Melbury House	14.91	22.27	- 7.36	67	17.71	15.93	+ 1.78	111		85
"	Ashburton, Druid House	24.32	32.16	- 7.84	76	25.12	19.45	+ 5.67	129		96
"	Barnstaple, N. Devon Athenæum	20.66	21.30	- .64	97	23.34	15.84	+ 7.50	147		118
"	Falmouth Observatory	22.20	26.14	- 3.94	85	17.38	16.55	+ .83	105		93
"	Altarnon Sanctuary	33.08	35.83	- 2.75	92	29.81	23.14	+ 6.67	129		107
VI.	East Harptree, Sherborne Res... ..	19.74	21.38	- 1.64	92	24.76	18.25	+ 6.51	136		112
"	Stroud, Field Place	10.79	15.15	- 4.36	71	16.03	14.66	+ 1.37	109		90
"	Church Stretton, Wolstaston	13.54	16.57	- 3.03	82	16.10	15.84	+ .26	102		91
"	Malvern, Church Street	10.74	14.14	- 3.40	76	15.81	14.43	+ 1.38	110		93
"	Ryton-on-Dunsmore	10.21	12.93	- 2.72	79	14.82	13.63	+ 1.19	109		94
VII.	Belvoir Castle	8.49	12.54	- 4.05	68	12.71	13.51	- .80	94		81
"	Revesby	9.86	12.59	- 2.73	78	12.66	12.56	+ .10	101		90
"	Lincoln, Skellingthorpe Hall	8.97	11.34	- 2.37	79	11.58	12.36	- .78	94		87
"	Mickleover Manor	12.55	12.75	- .20	98	17.42	13.90	+ 3.52	125		112
VIII.	Middlewich, Bostock Hall	14.63	14.63	.00	100	17.89	15.33	+ 2.56	117		109

Seasonal Rainfall, 1917-1918, in Relation to the Average, 1875-1909—(continued).

Div.	Stations.	Winter Six Months, October, 1917—March, 1918.				Summer Six Months, April—September, 1918.				12 Months, Oct., 1917—Sept., 1918.	
		Rainfall.	Aver. age.	Difference from Average.	Per cent. of Aver.	Rainfall.	Aver. age.	Difference from Average.	Per cent. of Aver.		Per cent. of Average.
		in.	in.	in.		in.	in.	in.			
VIII.	Stonyhurst College	29.00	24.66	+ 4.34	118	28.23	22.13	+ 6.10	128		122
IX.	Southport, Hesketh Park	18.58	16.73	+ 1.85	111	21.41	15.97	+ 5.44	134		122
	Sheffield W.W., Redmires Res.	20.54	22.20	— 1.66	93	20.93	19.11	+ 1.82	110		100
	Wetherby, Ribston Hall	13.06	13.31	— .25	98	19.45	13.56	+ 5.89	143		121
	Hull, Pearson Park	10.08	13.17	— 3.09	76	13.96	13.25	+ .71	105		91
	Leyburn, Bolton Hall	16.58	18.61	— 2.03	89	19.40	14.18	+ 5.22	137		110
X.	Scarborough, Osgodby	11.21	14.17	— 2.96	79	14.86	12.23	+ 2.63	121		99
	Middlesborough, Albert Park	10.08	11.50	— 1.42	88	12.76	12.65	+ .11	101		95
	Newcastle-on-Tyne, Town Moor	11.40	13.92	— 2.52	82	14.70	14.02	+ .68	105		93
	Rothbury, Cragside	13.74	18.60	— 4.86	74	13.03	15.64	— 2.61	83		78
	Carlisle, Spital Cemetery	15.21	15.62	— .41	97	17.55	16.55	+ 1.00	106		102
XI.	Appleby, Castle Bank	18.00	18.62	— .62	97	22.26	15.79	+ 6.47	141		117
	Rydal, High Close	55.38	49.15	+ 6.23	113	36.94	32.82	+ 4.12	113		113
	Abergavenny, Larchfield	15.14	20.77	— 5.63	73	19.14	16.34	+ 2.80	117		92
	Ystalyfera, Wern School	35.25	36.79	— 1.54	96	32.15	27.25	+ 4.90	118		105
	Cardiff, Ely	20.59	23.26	— 2.67	89	25.11	19.02	+ 6.09	132		108
XII.	Haverfordwest	21.86	27.12	— 5.26	81	21.93	19.69	+ 2.24	111		94
	Aberystwyth, Gogerddan	25.60	24.58	+ 1.02	104	27.21	20.88	+ 6.33	130		116
	Birmingham W.W., Tyrnynydd	33.24	37.20	— 3.96	89	27.50	24.86	+ 2.64	111		98
	Wrexham, Pack Saddle Reservoir	17.26	17.24	+ .02	100	20.95	15.45	+ 5.50	136		117
	Llandudno	14.96	16.56	— 1.60	90	17.08	13.80	+ 3.28	124		106
XIII.	Holyhead	19.20	19.96	— .76	96	18.99	15.06	+ 3.93	126		109
	Douglas	26.85	23.40	+ 3.45	115	21.39	18.15	+ 3.24	118		116
	Anchencairn, Torr House	34.32	25.53	+ 8.79	134	22.72	21.27	+ 1.45	107		122
	Drumlanrig Castle	31.65	25.17	+ 6.48	126	21.73	18.54	+ 3.19	117		122
	Hawick, Branxholme	16.72	18.49	— 1.77	90	14.10	15.31	— 1.21	92		91
XIV.	North Esk Reservoir	17.30	21.46	— 4.16	81	14.65	18.29	— 3.64	80		80
	Marchmont House	14.79	17.06	— 2.27	87	14.53	16.70	— 2.17	87		87
	Airdrie, Hillend Reservoir	24.80	19.99	+ 4.81	124	15.19	17.73	— 2.54	86		106

Seasonal Rainfall, 1917-1918, in Relation to the Average, 1875-1909—(continued.)

Div.	Stations.	Winter Six Months, October, 1917—March, 1918.				Summer Six Months, April—September, 1918.				12 Months, Oct., 1917—Sept., 1918.	
		Rainfall.		Difference from Average.		Rainfall.		Difference from Average.		Per cent. of Average.	Per cent. of Average.
		in.	Aver- age.	in.	Per cent. of Aver.	in.	Aver- age.	in.	Per cent. of Aver.		
XIV.	Girvan, Pinmore	34.26	28.37	+ 5.89	121	20.66	21.40	— .74	97	110	
"	Loch T'hom	52.05	36.37	+ 15.68	143	25.67	28.10	— 2.43	91	120	
XV.	Lochgilphed, Pottaloch	42.03	28.71	+ 13.32	146	25.30	22.55	+ 2.75	112	131	
"	Islay, Eallabus	41.48	28.38	+ 13.10	146	22.34	20.41	+ 1.93	109	131	
"	Mull, Quinish	40.30	32.98	+ 7.32	122	25.16	23.59	+ 1.57	107	116	
XVI.	Loch Leven Sluice	17.19	19.86	— 2.67	87	14.56	16.68	— 2.12	87	87	
"	Loch Dhu	56.15	47.55	+ 8.60	118	28.65	31.03	— 2.38	92	108	
"	Blair Atholl	16.53	17.91	— 1.38	92	16.71	14.44	+ 2.27	116	103	
"	Dundee, Eastern Necropolis	11.76	14.08	— 2.32	84	16.92	14.56	+ 2.36	116	100	
XVII.	Fettercairn, The Burn	16.29	18.36	— 2.07	89	18.65	16.39	+ 2.26	114	101	
"	Braemar	16.98	19.11	— 2.13	89	18.42	15.82	+ 2.60	116	101	
"	Aberdeen, Cranford House	14.79	17.32	— 2.53	85	18.12	15.41	+ 2.71	118	101	
"	Gordon Castle ..	17.61	15.25	+ 2.36	115	18.39	15.09	+ 3.30	122	119	
XVIII.	Glenquoich	85.51	68.75	+ 16.76	124	44.84	40.59	+ 4.25	110	119	
"	Drumadrochit	22.15	20.27	+ 1.88	109	19.28	15.86	+ 3.42	122	115	
"	Inverness High School	15.09	14.18	+ .91	106	15.62	12.96	+ 2.66	121	113	
"	Fort William, Atholl Bank	57.03	46.72	+ 10.31	122	26.61	29.08	— 2.47	92	110	
"	Loch Torridon, Bendamph	70.21	51.09	+ 19.12	137	37.55	32.55	+ 5.00	115	129	
"	Stornoway	34.36	30.03	+ 4.33	114	25.18	18.37	+ 6.81	137	123	
XIX.	Dunrobin Castle	22.63	17.46	+ 5.17	130	18.42	14.44	+ 3.98	128	129	
"	Wick	17.07	16.15	+ .92	106	18.78	13.73	+ 5.05	137	120	
XX.	Glammire, Lota Lodge	22.93	25.64	— 2.71	89	18.52	18.44	+ .08	100	94	
"	Killarney, District Asylum	33.83	33.49	+ .34	101	20.72	21.32	— .60	97	100	
"	Valencia, Glanleam	34.72	32.09	+ 2.63	108	23.88	23.90	— .02	100	105	
"	Waterford, Brook Lodge	17.66	21.72	— 4.06	81	20.17	17.85	+ 2.32	113	96	
"	Nenagh, Castle Lough	22.10	21.46	+ .64	103	22.35	17.97	+ 4.38	124	113	
"	Ennistymon House	24.95	25.03	— .08	100	24.80	21.49	+ 3.31	115	107	
XXI.	Gorey, Courtown House	17.22	18.80	— 1.58	92	18.60	16.19	+ 2.41	115	102	
"	Abbey Leix, Blandsfort	17.36	18.51	— 1.15	94	17.67	17.41	+ .26	101	98	

THE RELATION OF THE TOTAL FALL OF RAIN IN 1918 TO THE AVERAGE.

THE incidence of rainfall during 1918 and the various features of interest which it exhibited have been set out in the preceding sections of Part II. of this volume. It remains to consider the total rainfall of the year, irrespective of the details of the manner in which it fell, and to study its geographical distribution in relation to the average. The data available for this purpose are such records as have been maintained sufficiently long to yield comparable average values, the period adopted for the purpose of computing the average being the 35 years 1875 to 1909. As it would be impossible to represent all parts of the country adequately if we confined ourselves too strictly to this limit we make use of a certain number of records extending over a shorter period and correct their average values to the equivalent of the 35 years. Thus all the data may be regarded as comparable within the limits of observational error.

In accordance with the plan which has been found to give the most satisfactory results and in continuation of the method used in former years, each of the records for 1918 has been expressed in the form of a percentage of the average at the same station. In all 309 records were treated in this way, and the percentage values were plotted on a map. On this map the distribution is made apparent by drawing isopleths passing through points giving similar values, and further emphasis is given by colouring the intervening zones with a blue or red tint according as the rainfall was above or below the average. When this has been done it is unnecessary to retain the figures themselves, and the map facing p. [110] shows only the isopleths and the zones of varying amounts of rainfall. The blue tint is made deeper according as the fall is greater relatively to the average and the red is deeper where it is smaller relatively to the average. Thus all places lying on the line of 100 which divides the blue country from the red enjoyed a rainfall during 1918 neither above nor below their respective averages. The lightest blue and the lightest red respectively indicate an excess or defect in rainfall between 0 and 10 per cent., the second tint a departure of from 10 to 20 per cent., and so on. By this means districts in which the rainfall of the year was excessive or defective are readily seen and the map is exactly comparable with those

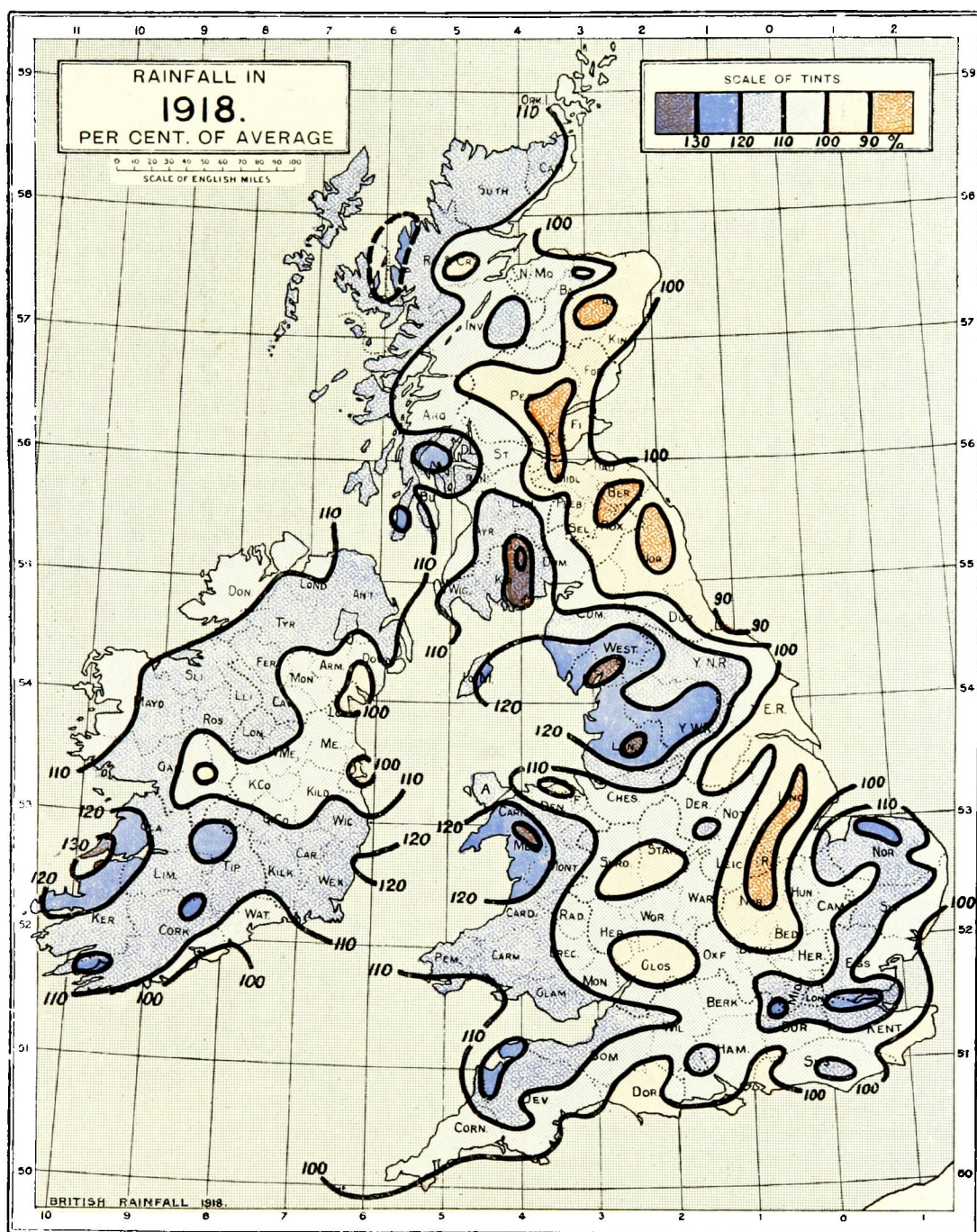
published in this section of *British Rainfall* since 1906 and to a less extent with those for the two previous years.

Turning to a consideration of the map itself it is clear that, speaking broadly, the wet areas preponderate over the dry. There is a distinct tendency for the districts of relatively high rainfall to be grouped on the western side both of Ireland and of Great Britain, a fact strongly confirmatory of the view already expressed, that the predominating type of rainfall experienced during 1918 was the orographical, giving, as rain of this kind nearly always does, an excess in the uplands of the west and a deficiency in the east of the country. Over by far the greater part of the western coasts of Great Britain, and a very large part of those of Ireland the rainfall of the year exceeded the average by more than 10 per cent., and the zone with not less than this amount extended far inland, stretching, indeed, right to the east coast in two places in Ireland, and extending right across Great Britain also in two places. The districts with more than 20 per cent. of excess were naturally more restricted, but they included large areas in North Wales, the north-west of England, and the south-west of Ireland, and smaller patches in Devonshire, Dumfriesshire, Argyll and West Ross-shire. There were also several detached areas with rather more than 20 per cent. excess in the Lower Thames Valley, and in Norfolk. More than 30 per cent. above the average, a figure constituting a very wet year, occurred in Merionethshire, central and north Lancashire, north Dumfriesshire and part of Co. Kerry. The only spot in the west at which the rainfall of 1918 was normal was near Rhyl.

The areas of deficient rainfall during the year were principally in the east of Great Britain, where a strip extending from the north of Aberdeenshire to Bedfordshire, with a break at Scarborough, had less than their average fall. At intervals in this long tract the deficiency exceeded 10 per cent., the most compact group of areas with so small a fall lying between central Aberdeenshire and Northumberland; at a few places in these areas the deficiency approached 20 per cent. Another small strip with more than 10 per cent. deficiency stretched from near Louth, in north Lincolnshire to Kettering. The rainfall of the year also fell slightly below the average in small patches in the centre and east of Ireland, in part of the West Midlands of England and along the greater part of a narrow coast strip in the south of England, extending at one point to the south coast of Ireland.

In connection with the relatively dry strip on the south coast of

RELATION OF RAINFALL IN 1918 TO THE AVERAGE OF 1875-1909.



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

England it is a matter of great interest to refer to the distribution of rainfall in this part of the country for several years past. After the dry year 1908 it is a significant fact that bands of high rainfall, sometimes interrupted, but in most cases continuous, are shown along the south coast in each map till 1916. They were most conspicuous in 1910, 1912, 1914, 1915 and 1916, in some of which years the south coast was relatively wetter than any other part of the British Isles. In 1917, however, the south coast was dry, but a well marked wet strip lay to the north, extending from Barnstaple to Yarmouth. In 1918 the same phenomenon is repeated on a somewhat more intense scale, and contrasted with the south coast dry strip we have a wet tract from Lands End to Cromer, in some parts of which the fall was as much as 20 per cent. above the average.

Of the 309 records used in the construction of the map it is possible to select 209 in such a manner as to give a fairly equable representation to all parts of the country, and these are printed in the table on pp. [112] to [116]. The arithmetical means of all the records quoted may be accepted as yielding a close approximation to the general means for the British Isles and for the larger divisions of the country. These are given below:—

ABSTRACT.

COUNTRIES.	No. of Records utilized.	Average. 10 years 1900-09.	Average. 35 years 1875-1909.	1918.	Diff. from Average 1875-1909.	
					Amount.	Per cent.
		in.	in.	in.	in.	
England.....	90	31·60	32·40	34·58	2·18	+ 7
Wales.....	19	46·13	46·66	53·33	6·67	+ 14
England and Wales.....	109	34·13	34·88	37·84	2·96	+ 8
Isle of Man	1	41·35	41·55	50·71	9·16	+ 22
Scotland	56	46·43	45·25	48·84	3·59	+ 8
Ireland	43	40·45	40·33	45·05	4·72	+ 12
British Isles	209	38·76	38·81	42·33	3·52	+ 9

It will be observed that in each of the districts dealt with separately the wet areas preponderated over the dry so that the general values were in every case above the average. Leaving apart the Isle of Man, the excess was greatest in Wales, where the year's rainfall was 14 per cent. above the average, and least in England where it was 7 per cent. above. For England and Wales together the excess was 8 per cent. A similar excess of 8 per cent. was observed in Scotland, whilst Ireland showed an excess of 12 per cent. For the whole of the British Isles the general excess was 9 per cent.

There can thus be no question that the year 1918 was, taken altogether, one of excessive rainfall. A general fall of 9 per cent. above the average is, however, not remarkable, and the following summary shows that it has been reached in no fewer than four out of the past nine years :—

Comparison of the Total Rainfall 1910-1918 with the average 1875-1909.

Year.	England.	Wales.	Eng. and Wales.	Scotland.	Ireland.	British Isles.
1910	111	116	112	103	108	109
1911	94	101	96	101	99	98
1912	123	119	122	111	108	115
1913	96	109	98	96	107	99
1914	109	110	109	103	108	107
1915	110	105	109	92	102	102
1916	113	107	112	116	114	114
1917	97	96	96	97	98	97
1918	107	114	108	108	112	109

In spite of the very slightly deficient rainfall in 1911, 1913 and 1917, the whole period commencing in 1910 must be regarded as one of persistently high rainfall over the British Isles as a whole, and the figure of 109 per cent. for 1918 indicates that the series of wet years was still in being during that year.

**COMPARISON OF THE RAINFALL OF THE YEAR 1918 WITH
THE AVERAGE OF THE PERIODS 1900-09 & 1875-1909.**

ENGLAND.

DIV.	COUNTY and river-division.	STATION.	Average 1900-09.	Average 1875- 1909.	Depth in 1918.	Difference from Average 1875-1909. Per Amount. cent
			in.	in.	in.	in.
I.	London..... 2	St. Pancras (Camden Square)	24·57	25·11	29·69	4·58 + 18
II.	Surrey 6	Haslemere (Hazelhurst)	35·84	36·15	35·97	·18 — 0
	„ Kent 1	Tenterden (View Tower).....	26·34	27·64	26·47	1·17 — 4
	„ „ 2	Margate (Cliftonville).....	21·02	23·33	21·90	1·43 — 6
	„ „ 4	Edenbridge (Falconhurst) ..	31·06	30·26	32·20	1·94 + 6
	„ Sussex 2	Patching	29·61	30·48	32·41	1·93 + 6
	„ „ 5	Hailsham Vicarage	30·02	30·48	33·74	3·26 + 11
	„ Hampshire 1	Ventnor (Flint Cottage)	27·95	28·97	28·43	·54 — 2
	„ „ 8	Sherborne St. John	29·27	29·17	30·98	1·81 + 6
III.	Hertfordshire 2	Tring (Cowroast Lock)	28·73	28·89	31·48	2·59 + 9
	„ „ 3	Royston (Therfield Rectory)..	24·64	25·56	26·26	·70 + 3
	„ Buckinghamshire ... 4	Slough (Langley)	23·52	24·18	27·51	3·33 + 14
	„ „ 5	Buckingham (Adstock Fields)	24·25	25·96	26·09	·13 + 1
	„ Oxfordshire 3	Oxford (Magdalen College)...	23·31	24·58	25·87	1·29 + 5
	„ Northampton 4	Wellingborough (Swanspool)	24·41	25·20	22·89	2·31 — 9
	„ Cambridgeshire ... 2	March	22·37	23·03	25·36	2·33 + 10

ENGLAND—(continued).

DIV.	COUNTY and river-division.	STATION.	Average 1900-09	Average 1875- 1909.	Depth in 1918.	Difference from Average 1875-1909. Per Amount. cent
			in.	in.	in.	in.
IV.	Essex	3 Shoeburyness	18·69	19·28	24·32	5·04 + 26
"	"	4 Chelmsford (High Street).....	22·66	23·02	25·03	2·01 + 9
"	"	5 Earls Colne (Chalkney Ho.)	22·83	23·43	26·14	2·71 + 12
"	Suffolk	5 Bury St. Edmunds (Westley)	24·11	25·40	29·77	4·37 + 17
"	Norfolk	1 Geldeston [Beccles]	22·74	23·73	26·99	3·26 + 14
"	"	2 Worstead (Dilham)	25·67	26·37	29·57	3·20 + 12
"	"	3 Blakeney	22·64	23·83	27·03	3·20 + 13
"	"	4 Swaffham	24·61	26·74	28·21	1·50 + 6
V.	Wiltshire	3 Warminster (Rye Hill)	35·21	36·75	38·03	1·28 + 3
"	"	4 Landford (Northlands)	30·04	30·11	33·97	3·86 + 13
"	"	6 New Swindon	26·37	28·05	29·25	1·20 + 4
"	Dorset	1 Evershot (Melbury House)	37·70	38·20	36·13	2·07 — 5
"	"	3 Wareham (South Street)	32·10	31·39	32·79	1·40 + 4
"	South Devon	2 Devonport (Rowdens Res.)	33·78	35·58	34·59	·99 — 3
"	"	4 Ashburton (Druid House)	48·68	51·61	54·70	3·09 + 6
"	"	6 Cullompton	33·22	35·18	38·73	3·55 + 10
"	North Devon	1 Lynton (Lee Abbey)	37·90	37·92	45·59	7·67 + 20
"	"	2 Barnstaple (N. Devon Ath.)	35·64	37·14	44·45	7·31 + 20
"	"	3 Okehampton (Oaklands).....	43·95	46·25	49·22	2·97 + 6
"	Cornwall	2 Falmouth (New Observatory)	41·95	42·69	43·58	·89 + 2
"	"	2 St. Austell (Trevarna).....	43·87	46·21	47·55	1·34 + 3
"	"	3 Altarnon Sanctuary	57·51	58·97	64·94	5·97 + 10
"	"	4 Scilly (St. Mary's)	30·44	32·36	32·51	·15 + 0
"	Somerset	1 Chewton Mendip (The Priory)	43·23	45·31	49·21	3·90 + 9
VI.	Gloucestershire	3 Stroud (Field Place)	29·03	29·81	28·05	1·76 — 6
"	"	7 Great Barrington	28·59	29·83	29·12	·71 — 2
"	Herefordshire	1 Ross (Birchlea).....	26·65	28·78	26·51	2·27 — 8
"	Shropshire	3 Bishop's Castle (Castle St.)...	29·76	31·69	30·35	1·34 — 4
"	"	3 Church Stretton (Wolstaston)	31·74	32·41	31·05	1·36 — 4
"	Staffordshire	2 Market Drayton (Old Springs)	29·47	29·41	29·65	·24 + 1
"	"	5 Tean (The Heath House)	32·10	32·65	34·60	1·95 + 6
"	Worcestershire	1 Malvern (Church Street)...	28·12	28·57	26·96	1·61 — 6
"	"	2 Stourport (Lincombe Lock)	25·09	26·17	28·77	2·60 + 10
"	"	3 Evesham (Lansdowne)	23·75	24·07	23·52	·55 — 2
"	Warwickshire	1 Ryton-on-Dunsmore	26·20	26·56	26·54	·02 — 0
VII.	Leicestershire	4 Thornton Reservoir.....	25·73	26·44	25·98	·46 — 2
"	"	4 Belvoir Castle Gardens	24·80	26·05	22·16	3·89 — 15
"	Lincolnshire	3 Boston (Black Sluice)	23·21	23·35	24·97	1·62 + 7
"	"	3 Lincoln (Skellingthorpe Hall)	22·72	23·70	22·30	1·40 — 6
"	"	4 Louth (Westgate).....	27·30	28·74	26·07	2·67 — 9
"	"	5 Brigg	25·83	26·21	27·37	1·16 + 4
"	Nottinghamshire	5 Worksop (Hodsock Priory)...	23·15	24·46	23·07	1·39 — 6
"	Derbyshire	5 Mickleover Manor	25·93	26·65	29·80	3·15 + 12
"	"	6 Matlock Bath	34·49	34·57	35·60	1·03 + 3
"	"	6 Buxton (Devonshire Hosp.)...	48·09	49·85	52·85	3·00 + 6
VIII.	Cheshire	2 Middlewich (Bostock Hall)	29·15	29·96	31·11	1·15 + 4
"	South Lancashire	3 Bolton (Smithills Hall)	46·80	46·29	60·57	14·28 + 31
"	Central	1 Stonyhurst College	45·88	46·79	58·99	12·20 + 26
"	"	3 Southport (Hesketh Park)	31·13	32·70	40·23	7·53 + 23
"	North	2 Cartmel (Holker Hall)	46·93	44·31	58·12	13·81 + 31
"	"	4 Wray Vicarage	43·74	44·34	51·95	7·61 + 17
IX.	Yorks, West Riding	1 Sedbergh (Akay).....	52·52	52·12	69·65	17·53 + 33
"	"	7 Sheffield W. W. (Redmires Res.)	40·25	41·31	40·88	·43 — 1

ENGLAND—(continued).

DIV.	COUNTY and river-division.	STATION.	Average 1900-09.	Average 1875- 1909.	Depth in 1918.	Difference from Average 1875-1909.		
						Per Amount.	cent	
			in.	in.	in.	in.		
IX.	Yorks, West Riding	7 Wath-upon-Deerne(ChapelSt.)	24·61	25·92	24·95	·97	— 4	
"	"	9 Silsden Reservoir.....	26·93	29·91	37·67	7·76	+ 26	
"	"	9 Malham Tarn	57·13	58·02	64·11	6·09	+ 11	
"	"	10 York (Cherry Hill)	23·50	24·78	26·99	2·21	+ 9	
"	"	11 Wetherby (Ribston Hall).....	28·10	26·87	33·89	7·02	+ 26	
"	"	East	3 Patrington	22·40	24·05	21·88	2·17	— 9
"	"	3 Hull (Pearson Park)	24·84	26·42	24·06	2·36	— 9	
"	"	3 Lowthorpe (The Elms)	25·09	27·35	25·82	1·53	— 6	
"	"	North	1 Leyburn (Bolton Hall).....	31·72	32·79	38·02	5·23	+ 16
"	"	2 Rounton Grange	25·56	25·82	27·02	1·20	+ 5	
"	"	4 Scarborough (Osgodby)	24·09	26·40	26·97	·57	+ 2	
"	"	5 Guisborough(LockwoodBeck)	31·89	33·13	28·66	4·47	— 13	
X.	Durham.....	2 WeardaleWW. (Waskerley)...	32·19	32·04	32·62	·58	+ 2	
"	"	2 Sunderland (W. Hendon Ho.)	25·29	26·07	24·63	1·44	— 6	
"	Northumberland ...	4 Hallington (Fawcett)	28·11	28·95	25·69	3·26	— 11	
"	"	5 Rothbury (Cragside)	33·66	34·24	27·46	6·78	— 20	
"	"	6 Pawston [Coldstream].....	30·47	30·34	27·36	2·98	— 10	
"	Cumberland	1 Carlisle (Spital Cemetery) ...	33·21	32·17	33·65	1·48	+ 5	
"	"	3 Whitehaven (Irish Street) ...	43·57	41·70	50·40	8·70	+ 21	
"	Westmorland	1 Appleby (Castle Bank)	35·15	34·41	43·47	9·06	+ 26	
"	"	2 Rydal (High Close)	85·73	81·97	100·07	18·10	+ 22	

MONMOUTH AND WALES.

XI.	Monmouth ...	3 Llanfrechfa Grange.....	41·23	43·64	47·59	3·95	+ 9
"	"	3 Abergavenny (Larchfield) ...	34·83	37·11	37·28	·17	+ 0
"	Glamorgan	3 Ystalyfera (Wern School)....	63·91	64·04	74·55	10·51	+ 16
"	"	5 Cardiff (Ely Pumping Station)	41·02	42·28	47·78	5·50	+ 13
"	Carmarthen	2 Carmarthen (The Friary).....	47·85	48·80	54·88	6·08	+ 12
"	"	2 Llanwrda (Dolaucothy)	55·89	56·60	63·72	7·12	+ 12
"	Pembroke.....	3 St. Davids.....	37·72	36·75	41·15	4·40	+ 12
"	"	4 Pembroke (Stackpole Court)	37·83	40·26	42·30	2·04	+ 5
"	"	4 Haverfordwest	45·54	46·81	52·49	5·68	+ 12
"	Cardigan	2 Aberystwyth (Gogerddan) ...	45·81	45·46	55·79	10·33	+ 23
"	Brecon	4 Nanthir Reservoir [Aberdare]	57·23	59·39	65·14	5·75	+ 10
"	Radnor	1 Birmingham WW (Nantgwillt).	59·70	61·56	68·97	7·41	+ 12
"	Montgomery.....	5 L. Vyrnwy (B. Cynon Isaf)...	54·83	55·33	66·60	11·27	+ 20
"	Flint	1 Northop (Soughton Hall) ...	32·29	32·55	33·71	1·16	+ 4
"	Denbigh	1 Wrexham (Pack Saddle Res.)	33·43	32·69	35·91	3·22	+ 10
"	Merioneth.....	1 Bala (Eryl Aran)	54·94	52·18	71·63	19·45	+ 37
"	"	3 Tan-y-bwlch (The Gardens)..	62·93	62·25	78·59	16·34	+ 26
"	Carnarvon	2 Llandudno.....	29·76	30·36	30·64	·28	+ 1
"	Anglesey	Llanerchymedd (LlywdiarthEsgob)	39·66	38·57	44·63	6·06	+ 16

ISLE OF MAN.

XI.	Isle of Man	Douglas (Borough Cemetery)	41·35	41·55	50·71	9·16	+ 22
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SCOTLAND.

XII.	Wigtown	3 Stoneykirk (Ardwell House)...	38·52	36·40	43·07	6·67	+ 18
"	Kirkcudbright	2 Gatehouse (Cally)	50·04	49·15	57·17	8·02	+ 16
"	"	3 Dalry (Glendarroch)	55·17	52·60	62·60	10·00	+ 19

SCOTLAND—(continued.)

DIV.	COUNTY and river-division.	STATION.	Average 1900-09.	Average 1875- 1909.	Depth in 1918.	Difference from Average 1875-1909.	
						Amount.	Per cent
			in.	in.	in.	in.	
XII.	Kirkcudbright	4 Auchencairn (Torr House) ...	48·94	46·80	57·89	11·09	+ 24
„	Dumfries	3 Durrisdeer(DrumlanrigGdns.)	46·22	43·71	57·35	13·64	+ 31
„	„	4 Moffat (Craigielands)	53·06	53·20	56·08	2·88	+ 5
„	„	5 Canonbie (Byreburnfoot)	42·74	42·56	44·00	1·44	+ 3
„	Roxburgh ..	3 Hawick (Braxholme)	32·27	33·80	30·31	3·49	— 10
XIII.	Selkirk	5 Galashiels (Stantling Craigs)	33·63	34·75	32·21	2·54	— 7
„	Peebles	3 N. Esk Reservoir [Penicuik]	39·94	39·75	33·50	6·25	— 16
„	Berwick	4 Marchmont House	32·52	33·76	27·97	5·79	— 17
„	Haddington	4 Prestonkirk (Smeaton)	26·00	25·47	26·12	·65	+ 3
XIV.	Lanark	1 Biggar (Cambus Wallace) ...	30·23	30·47	32·60	2·13	+ 7
„	„	4 Airdrie (Hillend Reservoir)...	38·13	37·72	37·35	·37	— 1
„	Ayr	3 Kilmarnock(North Craig Res.)	45·21	40·92	45·50	4·58	+ 11
„	„	8 Girvan (Pinmore)	53·19	49·77	53·36	3·59	+ 7
XV.	Dumbarton	2 Helensburgh (Ferniegair) ...	48·86	49·14	57·46	8·32	+ 17
„	Stirling	5 Strathblane (Mugdock Res.)..	43·34	46·44	47·30	·86	+ 2
„	Bute	1 Rothesay	54·65	52·10	60·06	7·96	+ 15
„	Argyll	2 Loch Sunart (Glenborrodale)	69·47	66·99	75·35	8·36	+ 12
„	„	7 Kilmelfort (Arduaine)	59·13	57·60	62·66	5·06	+ 9
„	„	10 Campbeltown (Devaar)	47·33	44·23	55·80	11·57	+ 26
„	„	14 Islay (Eallabus)	51·26	48·79	56·52	7·73	+ 16
„	„	14 Mull (Quinish)	57·55	56·57	65·07	8·50	+ 15
XVI.	Kinross	2 Loch Leven Sluice ..	36·70	36·54	30·35	6·19	— 17
„	Perth	2 Loch Dhu	81·21	78·58	86·05	7·47	+ 10
„	„	3 Balquhiddier (Stronvar)	74·43	73·77	76·03	2·26	+ 3
„	„	4 Dunblane (Kippendavie)	45·48	39·37	41·60	2·23	+ 6
„	„	14 Blair Atholl ..	33·36	32·35	34·06	1·71	+ 5
„	„	15 Blairgowrie (Ballintuim Ho.)	38·58	37·68	38·69	1·01	+ 3
„	Forfar	2 Dundee (Eastern Necropolis)	27·72	28·64	28·00	·64	— 2
XVII.	Kincardine	1 Fettercairn (The Burn)	35·13	34·75	35·40	·65	+ 2
„	Aberdeen	1 Braemar (Bank)	34·11	34·93	35·03	·10	+ 0
„	„	1 Logie Coldstone (Loanhead) ..	32·72	30·67	25·22	5·45	— 18
„	„	1 Aberdeen (Cranford House) ..	32·70	32·73	31·22	1·51	— 5
„	„	4 New Deer Schoolhouse	32·89	34·74	32·98	1·76	— 5
„	Moray	2 Gordon Castle	30·64	30·34	30·28	·06	— 0
„	„	3 Grantown-on-Spey	32·65	31·23	33·05	1·82	+ 6
XVIII.	Inverness	3 Kingussie	29·66	29·62	37·85	8·23	+ 28
„	„	6 Fort Augustus	45·19	44·53	46·70	2·17	+ 5
„	„	7 Glenquoich	115·15	109·34	123·53	14·19	+ 13
„	„	9 Drumnadrochit	35·08	36·13	39·28	3·15	+ 9
„	„	9 Inverness (High School)	28·12	27·14	28·79	1·65	+ 6
„	„	13 Arisaig House	62·88	61·75	70·82	9·07	+ 15
„	„	17 Fort William	77·59	75·80	78·71	2·91	+ 4
„	„	18 Skye (Scalpay Island)	77·22	74·40	88·53	14·13	+ 19
„	„	19 Harris (Island Glass)	46·26	42·44	48·70	6·26	+ 15
„	Ross & Cromarty	4 Alness (Ardross Castle)	41·86	38·55	39·77	1·22	+ 3
„	„ ..	5 Fearn (Lower Pitkerrie)	23·49	23·18	24·17	·99	+ 4
„	„ ..	8 Loch Torridon (Bendamph) ..	89·50	83·64	97·04	13·40	+ 16
„	„ ..	9 Glencarron Lodge	87·59	86·50	84·75	1·75	— 2
„	„ ..	10 Stornoway	50·48	48·40	56·01	7·61	+ 16

SCOTLAND—(continued).

DIV.	COUNTY and river-division.	STATION.	Average 1900-09.	Average 1875- 1909.	Depth in 1918.	Difference from Average 1875-1909. Per Amount, cent
			in.	in.	in.	in.
XIX.	Sutherland	2 Dunrobin Castle	33·07	31·90	34·96	3·06 + 10
„	Caithness.....	2 Wick	31·35	29·88	32·18	2·30 + 8
„	„	3 Dunnet Head	29·16	29·89	33·46	3·57 + 12
„	Orkney	Shapinsay (Balfour Castle) ...	30·57	32·13	34·85	2·72 + 8

IRELAND.

XX.	Cork	7 Glanmire (Lota Lodge)	41·90	44·08	46·70	2·62 + 6
„	„	9 Mallow (Summer Hill)	38·20	38·90	47·44	8·54 + 22
„	Kerry	3 Killarney (District Asylum)..	50·48	54·81	62·30	7·49 + 14
„	„	4 Darrynane Abbey.....	47·76	49·95	57·30	7·35 + 15
„	„	4 Kenmare (Dromore)	70·26	64·92	74·09	9·17 + 14
„	„	6 Valencia (Glanleam)	56·04	55·99	65·90	9·91 + 18
„	Waterford.....	3 Waterford (Brook Lodge) ...	40·12	39·57	43·39	3·82 + 10
„	Tipperary	1 Nenagh (Castle Lough)	38·55	39·43	50·31	10·88 + 28
„	„	3 Clonmel (Bruce Villa).....	35·90	37·10	40·45	3·35 + 9
„	„	4 Roscrea (Timoney Park).....	36·50	36·00	40·88	4·88 + 14
„	Limerick	2 Foynes	39·23	39·60	46·70	7·10 + 18
„	Clare	2 Ennistymon House	47·77	46·52	54·73	8·21 + 18
„	„	3 Carrigaholt Castle	36·97	36·60	48·80	12·20 + 33
„	„	3 Newmarket-on-Fergus.....	41·99	42·00	47·63	5·63 + 13
XXI.	Wexford	3 Enniscorthy (Ballyhyland) ...	42·13	42·70	48·01	5·31 + 12
„	„	4 Gorey (Courtown House) ...	33·34	34·99	42·07	7·08 + 20
„	Kilkenny	2 Kilkenny (Lavistown House)	30·92	31·15	33·77	2·62 + 8
„	Queen's County ...	2 Abbey Leix (Blandsfort).....	37·70	35·92	39·01	3·09 + 9
„	King's County	1 Birr Castle.....	32·77	32·86	34·86	2·00 + 6
„	Kildare	1 Monasterevan (Moore Abbey)	32·18	32·50	34·59	2·09 + 6
„	„	2 Straffan House	30·56	31·61	33·70	2·09 + 7
„	Dublin	2 Dublin (FitzWilliam Square)	26·93	27·68	26·80	·88 — 3
„	„	3 Balbriggan (Ardgillan)	28·62	29·58	31·12	1·54 + 5
„	Meath	4 Kells (Headfort)	34·25	37·25	40·74	3·49 + 9
„	Westmeath	1 Athlone (Twyford)	34·99	37·35	41·14	3·79 + 10
„	„	1 Mullingar (Belvedere)	35·89	36·15	38·85	2·70 + 7
„	Louth	3 Greenore ..	32·95	32·33	31·59	·74 — 2
XXII.	Galway	3 Tuam (Gardenfield).....	44·06	42·69	47·14	4·45 + 10
„	„	4 Woodlawn.....	42·19	41·57	38·35	3·22 — 8
„	Mayo	2 Crossmolina (Enniscoe)	54·37	52·87	59·92	7·05 + 13
„	„	6 Cong (The Glebe)	49·78	48·90	55·42	6·52 + 13
„	„	6 Ballinrobe (Cranmore).....	48·42	47·75	54·81	7·06 + 15
„	Sligo	2 Collooney (Markree Obs.) ...	44·40	42·71	49·57	6·86 + 16
XXIII.	Cavan	1 Belturbet (Cloverhill)	35·52	33·74	36·76	3·02 + 9
„	Armagh	5 Armagh Observatory	32·09	31·88	35·52	3·64 + 11
„	Down	2 Seaford.....	39·47	38·91	42·82	3·91 + 10
„	„	4 Donaghadee	31·71	31·70	34·13	2·43 + 8
„	Antrim	1 Belfast (Queen's University)..	35·89	33·81	37·99	4·18 + 12
„	„	5 Ballymena (Harryville)	42·52	40·84	47·63	6·79 + 17
„	Londonderry	5 Londonderry (Creggan Res.)	42·94	41·78	46·65	4·87 + 12
„	„	5 Limavady (Drenagh)	37·88	37·46	39·31	1·85 + 5
„	Tyrone ..	3 Omagh (Edenfel)	42·30	39·38	43·69	4·31 + 11
„	Donegal	5 Killybegs	60·95	60·60	64·35	3·75 + 6

EXTREMES OF RAINFALL IN 1918.

It is improbable, even with the 5,000 rainfall stations at present at work in the British Isles that the districts of greatest and of least rainfall are so fully represented that we can with confidence assume that the extreme readings recorded during any year are necessarily strictly representative. This applies more to the districts of highest fall than to those of lowest, for in the former the variation of rainfall from place to place is sometimes extremely abrupt, whereas the latter lie in districts of slight variation from place to place. In England and Wales we believe that the rain gauges, respectively on the Styne, in Cumberland, and on the slopes of Snowdon, in Carnarvonshire, give very nearly if not quite the largest figures which may be expected, though we say this with some diffidence. In Scotland, in spite of the very large readings reported annually from the head of Glenquoich we do not feel that there is any certainty that rainier spots may not exist, whilst in Ireland it is practically certain that the districts of highest rainfall have not yet been explored by means of the rain gauge. Whilst the districts of high rainfall are the less easy to locate with certainty, a difficulty of a different kind surrounds the attempt to define those of smallest fall. This lies in the possibility of erroneous records, some of which every year give values lower than we care to accept as fully trustworthy. This arises not by any means necessarily from negligence on the part of the Observer, but as a rule from some peculiarity of exposure which renders the record not representative of the district.

Districts of Greatest Rainfall.

As is usual, except in extremely wet years, more than 100 inches of rain fell in England only over a small part of the central Lake District. More than 180 inches fell round the heads of Borrowdale and Langdale, rising to **211·50 in.** on the Styne, and **181·42 in.** at Mickleden. In Wales there were at least four areas with as much as 100 inches, respectively in Glamorganshire, in the north of Breconshire, round

Plynlimon and round Snowdon. The last was the only large area, and more than 175 inches fell at half-a-dozen of the rainiest of the Snowdon group of stations, the fall reaching **209·17 in.** at Crib Goch. In the west of Scotland areas between the Trossachs and Loch Awe had as much as 100 inches during the year, and this was no doubt the case also on Ben Nevis, but the only large area with so high a fall of which we have any evidence lay as usual in north-western Argyll and western Inverness-shire. The highest total reported was **191·97 in.** at Loan, followed by **145·92 in.** at Kinlochquich. Two rainy areas in Ireland, the mountain districts of Co. Kerry and of Connemara, had more than 100 inches. Gearahameen, near the Gap of Dunloe, in the former yielding **112·30 in.**, whilst at Delphi Lodge and Aasleagh House in western Mayo, **112·33 in.** and **101·49 in.** fell respectively.

Districts of Least Rainfall.

The lowest rainfall for the year in England unquestionably occurred on the sheltered north coast of Kent, where several stations agree in giving values rather **below 20 inches.** This low total was not approached in other parts of the British Isles, and in Wales only a very small strip of the north coast of Flint, and one or two stations in the Llwyd Valley had **less than 30 inches** during the year. In Scotland less than 25 inches occurred along a coast fringe from North Berwick to Arbroath, and again between the Moray Firth and Dornoch Firth, with a probable minimum of **about 24 inches** at various spots. The east coast fringe of Ireland showed less than 30 inches only round Dublin, where the minimum fell to **less than 25 inches** at a few stations.

Summary.

Both the highest and the lowest rainfall recorded in 1918 occurred in England, well over 200 inches being observed on the Stye and less than 20 inches, or one-tenth of that amount, in part of the lower Thames Estuary. Whilst the total on the eastern flanks of Snowdon ran the Lake District station very close for the first place as the wettest station for the year, the minimum fall was nowhere else within about 4 inches of that observed in England.

BRITISH RAINFALL ORGANIZATION.

HUGH ROBERT MILL,
M. DE CARLE S. SALTER,
Joint Directors

BRITISH RAINFALL, 1918.
PART III.

GENERAL TABLE
OF
TOTAL RAINFALL IN 1918
AT
4998 STATIONS
IN
GREAT BRITAIN AND IRELAND,
WITH THE NAMES OF
THE OBSERVERS
OR OTHER AUTHORITIES FOR THE OBSERVATIONS.

COMPILED BY
M. de CARLE S. SALTER.

62 CAMDEN SQUARE, LONDON, N.W. 1.

EXPLANATORY NOTE.

The counties are divided up into numbered areas, corresponding to the river-basins. A full description 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.

The Divisions in the General Table are the same as those adopted by the Registrars General of England and Scotland. The stations in each river-division are arranged nearly in the order of their latitude from South to North.

For convenience, the first name is that of a place which can be easily found on any large scale map; the second name is added to fix the site of observation more closely. In a very few instances, when in [] instead of (), it is that of the nearest town in an adjoining county; *e.g.*, “Haslemere (Courts Hill)” means Courts Hill, near Haslemere, both in one county; but “Geldeston [Beccles]” means Geldeston near Beccles, which is in another county.

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

The letter D signifies that daily observations have been received and are complete for the year. M indicates that the gauge is read only once a month. (R) denotes that the gauge used is a self-registering or a recording instrument, the correct reading of which depends upon the mechanism being in working order.

When the words *per* M.O. follow the name of the Observer the record is printed on the authority of the Meteorological Office. M.O.S. indicates Meteorological Office, Edinburgh, and S.M.S. Scottish Meteorological Society.

The total rainfall is printed in ordinary 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.

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 printed if the gauge has been moved more than a mile, or if there is a greater difference than 50 feet of altitude between the two positions.

A note of interrogation (?) implies doubt, not necessarily error; it is not intended to cast any suspicion on the accuracy of the Observer. The absence of information is indicated by . .

NOTE.—The mark †, indicating that a gauge has been inspected by the Editor or one of his Assistants, has been removed.

COUNTY INDEX TO GENERAL TABLE.

E N G L A N D .

Bedfordshire	146	Herefordshire	166	Oxfordshire	143
Berkshire	138	Hertfordshire	141	Rutland.....	173
Buckinghamshire...	142	Huntingdonshire...	146	Shropshire.....	167
Cambridgeshire ...	147	Kent	128	Somerset	161
Cheshire.....	178	Lancashire	180	Staffordshire...	168
Cornwall and Scilly	160	Leicestershire	172	Suffolk	150
Cumberland	197	Lincolnshire.....	173	Surrey	124
Derbyshire	176	London	122	Sussex	132
Devonshire	156	Middlesex.....	139	Warwickshire	171
Dorsetshire	155	Monmouth	200	Westmorland	199
Durham	195	Norfolk	151	Wiltshire	153
Essex	148	Northamptonshire.	145	Worcestershire ...	169
Gloucestershire.....	164	Northumberland ...	196	Yorkshire	185
Hampshire.....	135	Nottinghamshire...	175		

W A L E S .

Anglesey	209	Carnarvon.....	208	Merioneth.....	208
Brecon	204	Denbigh.....	207	Montgomery.....	206
Cardigan	203	Flint	207	Pembroke	203
Carmarthen	202	Glamorgan	201	Radnor	206

I S L A N D S .

Isle of Man.....	210	Channel Islands	210
------------------	-----	-----------------------	-----

S C O T L A N D .

Aberdeen	227	Fife	223	Orkney	231
Argyll	221	Forfar	225	Peebles.....	213
Ayr	217	Haddington	214	Perth	224
Banff	228	Inverness	228	Renfrew	218
Berwick..	214	Kincardine	226	Ross and Cromarty	230
Bute	221	Kinross	223	Roxburgh	212
Caithness	231	Kirkcudbright	211	Selkirk.....	213
Clackmannan	223	Lanark	216	Shetland	232
Cromarty and Ross	230	Linlithgow	216	Stirling	220
Dumbarton	219	Midlothian	214	Sutherland	231
Dumfries	212	Moray or Elgin ...	228	Wigtown	211
Elgin or Moray ...	228	Nairn.....	228		

I R E L A N D .

Antrim	241	Kerry.....	234	Monaghan	240
Armagh.....	241	Kildare	237	Queen's County ...	237
Carlow	236	Kilkenny ..	236	Roscommon	239
Cavan.....	240	King's County ...	237	Sligo.....	240
Clare	235	Leitrim	240	Tipperary	234
Cork	233	Limerick	235	Tyrone	242
Donegal.....	242	Londonderry.....	242	Waterford..	234
Down	241	Longford	239	Westmeath	238
Dublin	237	Louth.....	238	Wexford.....	235
Fermanagh.....	240	Mayo	239	Wicklow	236
Galway	239	Meath	238		

ENGLAND AND WALES.

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

STATIONS.	AUTHORITIES.	Rain Gauge.				Depth of Rain. 1918	Days with 0.1 in. or more
		Diam.	Height Above Ground Sea Level				
1.—THAMES—Right Bank Tributaries. 67 sq. mi.		<i>in. ft. in. feet</i>				<i>mm. inches</i>	
BERMONDSEY.							
	Southwark Park London County Council	5	9	11	19	726	28.60 165
D	Shad Thames Pumping Stat. London County Council	6	28	5	43	754	29.70 165
LAMBETH.							
D	(Brockwell Park) London County Council.	8	1	3	140	718	28.28 152
D	(Brixton Hill Res.) Met. Water Board	5	3	2	115	716	28.19 171
BATTERSEA.							
	Battersea Park London County Council	5	9	8	13	705	27.75 ..
D	(Battersea Water Works) Mr. F. J. Goldsworthy .	5	3	6	26	666	26.21 10
D	Nine Elms (Heathwall) . . London County Council	8	39	4	54	703	27.69 175
WANDSWORTH.							
D	Streatham (Conyers Road) Met. Water Board	5	2	9	119	680	26.78 180
D	Streatham Hill Reservoir Met. Water Board	5	3	1	197	677	26.65 161
D	(Putney Heath Reservoir) Met. Water Board	5	1	0	180	771	30.36 198
D	(Balham High Road) . . (R) P. Dodd, Esq., C.E.	6	1	6	89	798	31.41 186
D	Wandsworth C. (Loxley Rd.) F. J. Brodie, Esq.	8	1	0	105	808	31.83 208
D	Southfields (R) P. Dodd, Esq., C.E.	6	1	6	37	750	29.51 177
	Clapham Common H. N. Prentice, Esq.	5	1	5	60	715	28.16 ..
CAMBERWELL.							
D	Nunhead (Southwark W.W.) Met. Water Board	5	1	0	173	730	28.74 187
DEPTFORD.							
D	(Telegraph Hill) London County Council .	5	7	0	135	684	26.92 165
D	(Water Works) Met. Water Board	5	1	0	20	672	26.45 165
GREENWICH.							
D	(Deptford Pumping Sta.) London County Council .	8	4	0	18	701	27.61 171
D	(Royal Observatory) Sir F. W. Dyson, F.R.S.	8	1	0	150	718	28.28 183
D	(Royal Observatory) Sir F. W. Dyson, F.R.S.	8	0	5	149	720	28.35 187
D	(Westcombe Park Road) . . T. R. Price, Esq.	8	1	6	154	739	29.10 188
LEWISHAM.							
D	Forest Hill (Barr Beacon) Met. Water Board	5	3	3	340	786	30.94 185
D	(Clarendon Road) G. E. Dacey, Esq.	5	1	0	98	754	29.70 203

DIVISION I.—LONDON.—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.				Depth of Rain.		Days with 0 lin. or more
		Diam.	Height Above Ground Sea Level			1918		
		in.	ft.	in.	feet	mm.	inches	
1.—THAMES—Right Bank Tributaries—(con.)								
WOOLWICH.								
Eltham (High Street).....	Met. Water Board.....	5	1	0	245	702	27.64	179
Plumstead C. (St. John's Rd).....	J. G. Waller, Esq.....	8	2	6	270	758	29.84	219
2.—THAMES—Left Bank Tributaries. 50 sq. mi.								
KENSINGTON.								
(V. & A. Museum).....	J. Storr, Esq.	8	0	6	27	749	29.49	192
(Holland House)	Mr. C. Dixon	5	4	0	69	738	29.04	171
(Cam House)	Lord Phillimore	5	3	0	100	743	29.25	156
(Campden Hill)	Met. Water Board.....	8	1	0	142	840	33.08	176
HAMMERSMITH (The Creek) ...	London County Council.	8	15	5	35	652	25.68	174
FULHAM (Hammersmith Cmtry.)	Mr. R. J. Brown	5	1	0	16	711	28.00	174
CHELSEA.								
(Lots Road Pump. Station)	London County Council.	8	32	0	48	666	26.22	160
(Western Pumping Station)	London County Council.	8	1	0	19	728	28.64	186
(Physic Garden)	W. Hales, Esq.	5	1	0	20	741	29.17	179
(Oakley Street)	A. Hampton Brown, Esq.	5	1	0	25	735	28.92	181
(St. Luke's Gardens).....	T. W. E. Higgins, Esq. C.E.	5	1	0	25	783	30.84	174
WESTMINSTER.								
(King's Scholars Pond)....	London County Council.	8	11	6	31	768	30.24	172
(St. George's Square).....	T. H. McEwen, Esq.....	8	0	7	..	741	29.19	162
(Buckingham Palace)	Mr. W. Osborne.....	5	8	6	35	769	30.27	188
(Kensington Gardens)	Mr. W. Beecher.....	8	2	2	..	758	29.83	182
(St. James's Park).....	H.M. Office of Wrks per MO	8	1	0	27	762	30.00	179
(Hyde Park)	Royal Humane Society .	8	1	3	..	646	25.45	170
(Spring Gardens).....	(1) London County Council	8	66	4	95	711	27.98	194
(Spring Gardens).....	(2) London County Council	12	65	11	95	709	27.91	194
(Spring Gardens).....	(3) London County Council	8	6	0	35	714	28.13	194
(Strand)	J. J. Steward, Esq.	5	40	0	80	742	29.21	168
ST. MARYLEBONE,								
(Royal Botanic Gardens)	Mr. J. L. North	8	1	0	130	811	31.94	184
(33, Hamilton Terrace) ..	E. Heron Allen, Esq. ...	5	0	6	..	751	29.56	..
HAMPSTEAD.								
(Barrow Hill Reservoir) ..	Met. Water Board.....	5	1	0	197	746	29.36	204
(Kemplay Road)	C. Clarke, Esq.....	5	2	0	..	606	23.87	..
(Kidderpore Reservoir) ..	Met. Water Board.....	5	1	0	322	741	29.19	172
(New End Square)	Mr. W. Pikesley	5	1	0	..	796	31.32	188
(Observatory)	E. L. Hawke, Esq.	8	1	0	451	744	29.30	188
(Golder's Hill).....	London County Council.	5	9	8	350	652	25.67	..
ST. PANCRAS.								
(Camden Square)	British Rainfall Org. ..	8	0	9	111	754	29.69	195
(Camden Square) <i>snowdon</i>	British Rainfall Org. ..	5	1	0	111	740	29.12	178
(Camden Square) <i>weekly</i>	British Rainfall Org. ..	5	1	2	111	761	29.97	..
(Camden Square) <i>float g.</i>	British Rainfall Org. ..	8	0	11	111	740	29.15	..
STOKE NEWINGTON.								
(New River Filter Beds) ..	Met. Water Board.....	5	1	0	101	746	29.38	191
(New River Reservoirs) ..	Met. Water Board.....	5	1	0	105	734	28.89	173
HACKNEY.								
(Clapton Pond)	Norman Scorgie, Esq. CE	5	1	0	69	757	29.79	170
(Clapton Pond)	(R) Norman Scorgie, Esq. CE	8	2	6	70	755	29.72	170
HOLBORN (Stone Yard)	E. F. Spurrell, Esq. ...	5	12	0	89	705	27.75	..
FINSBURY (New River Head)	Met. Water Board.....	5	1	0	95	754	29.67	169

DIVISION I.—LONDON—(*continued*).

STATIONS.	AUTHORITIES.	Rain Gauge.				Depth of Rain. 1918	Days with 0.1 in. or more
		Diam.	Height Above Ground Sea Level				
2.—THAMES—Left Bank Tributaries—(con.)		<i>in.</i>	<i>ft.</i>	<i>in.</i>	<i>feet</i>	<i>mm.</i>	<i>inches</i>
D CITY OF LONDON (Guildhall)	E. E. Finch, Esq., C.E. .	8	2	6	46	716	28.18 164
	(Guildhall) (R) E. E. Finch, Esq., C.E. .	8	49	0	99	789	31.05 163
D BETHNAL GREEN (Victoria Park)	London County Council.	5	9	3	43	677	26.64 179
POPLAR.							
	Isle of Dogs (Stewart Rd.) London County Council.	8	1	0	15	746	29.36 181
	(Island Gardens) London County Council.	5	4	6	..	724	28.50 ..
D	(Old Ford Pumping Stat.) .Met. Water Board.	8	0	9	19	813	32.02 190
D	(Old Ford, Penstock Ho.) .London County Council.	8	1	0	43	792	31.19 179
WOOLWICH.							
D	(N. Woolwich Pumpg. Sta.) London County Council.	8	0	9	12	796	31.35 162
D	(Barking Outfall) London County Council.	8	0	9	9	659	25.93 194

DIVISION II.—SOUTH EASTERN COUNTIES.

SURREY. (Area, 725 sq. mi.)

1.—ARUN. 45 sq. mi.							
D Haslemere (Beech Side Cott.) ..	J. Jackson, Esq.	5	0	9	570	880	34.65 189
Haslemere (Clammer Hill)	Col. Farquhar Glennie .	5	1	0	400	810	31.89 184
Haslemere (Grayswood Tower)	S. Barker, Esq.	5	1	0	625	712	28.02 ..
Godalming (Rockwoods, Brook)	<i>Surrey Advertiser</i> .....	..	..	..	450	768	30.24 ..
D Abinger (Joldwynds, Holmbury)	Mr. F. Cornish	5	1	0	550	906	35.65 171
2.—MEDWAY. 50 sq. mi.							
D Felbridge (Chartham Park) ...	Lieut. I. D. Margary ..	5	1	0	270	772	30.40 189
D Dormans Park (Hill Crest)	Mrs. H. R. Mill	5	1	0	320	816	32.12 190
D Oxted (Stone Hall)	W. P. Metcalfe, Esq. ...	5	1	2	320	774	30.46 201
D Limpsfield (Ballards Shaw) ...	F. C. Bayard, Esq.	5	1	1	500	712	28.02 197
3.—THAMES—Darent. 22 sq. mi.							
D Farleigh (Croydon Mental Hosp.)	Croydon Corporation ...	8	1	0	501	854	33.64 194
Chelsham (Fairchildes)	A. S. Daniell, Esq.	8	1	0	600	887	34.91 ..
D Addington (Hares Bnk Pump Sta)	Croydon Corporation ...	8	1	0	331	765	30.11 214
D Addington Hills Reservoir	Croydon Corporation ...	8	0	9	473	838	32.99 228
South Norwood (Woodside Vic.)	F. C. Bayard, Esq.	5	1	0	104	759	29.87 ..
D S. Norwood (Holmesdale Road)	E. A. Martin, Esq.	5	1	0	200	721	28.37 181
D Norwood (Auckland Road) ..	Miss J. Cooper	5	1	5	230	680	26.76 167
D Anerley (Town Hall)	F. C. Bayard, Esq.	8	40	0	191	730	28.75 173
4.—THAMES—Wandle. 71 sq. mi.							
D Kingswood (Margery Hall Res.)	W. Vaux Graham Esq. C.E. .	5	1	0	691	724	28.51 180
M Woldingham Reservoir	W. Vaux Graham, Esq. CE	5	1	6	851	867	34.12 ..
D Caterham Reservoir	A. E. Cornewall-Walker Esq	5	1	0	717	874	34.41 205
D Chaldon Rectory	F. C. Bayard, Esq.	5	1	0	542	871	34.29 156
D Chipstead (Eyhurst)	D. Morphew, Esq.	5	0	11	538	828	32.60 190
Chipstead (Walpole Avenue) ..	F. C. Bayard, Esq.	5	1	0	530	954	37.55 ..
D Caterham Asylum	F. C. Bayard, Esq.	5	1	0	607	875	34.44 197
D Chelsham & Woldingham W.W.	W. Vaux Graham, Esq. C.E. .	5	1	0	479	881	34.68 186
D Warlingham (The Larches) ...	Mrs. B. F. Harris	5	1	0	615	896	35.26 218
D Warlingham (Redvers Road) ..	late R. H. Curtis, Esq. ..	8	1	0	610	899	35.40 205
D Caterham Valley (Mount Vernon)	M. Ll. Evans, Esq.	5	0	10	500	961	37.83 195
D Caterham Valley Dépôt	A. E. Cornewall-Walker Esq	5	1	6	431	898	35.35 210
D Banstead (Burgh Heath)	Capt. E. R. Taylor	5	1	0	571	819	32.25 198
D Banstead (Burgh Heath Res.)	W. Vaux Graham Esq. C.E. .	5	1	0	570	818	32.19 164

DIVISION II.—SOUTH EASTERN COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.		Depth of Rain. 1918	Days with ·01 in. or more			
		Diam.	Height Above Ground SeaLevel					
SURREY—(continued).		in.	ft.	in.	feet	mm.	inches	
4.—THAMES—Wandle—(con.)								
Chipstead (The Lodge)	F. E. Goad, Esq.	5	0	9	525	830	32·68	184
D Chipstead (How Green Res.) . . .	W. VauxGrahamEsqC.E. . .	5	1	0	528	868	34·17	186
D Kenley Pumping Station	AECornwall-WalkerEsq. . .	5	1	6	275	847	33·33	187
D Banstead (The Asylum)	W.C.Clifford Smith, Esq. . .	5	4	6	420	773	30·44	172
D Purley (Oakwood Avenue)	E. W. Finch, Esq.	5	0	10	380	835	32·86	191
D Purley (Riddlesdown Rd.) No.1 . .	J. Edmund Clark, Esq. . . .	5	1	0	360	855	33·66	197
D Purley (Riddlesdown Rd.) No. 2 . .	J. Edmund Clark, Esq. . . .	5	1	0	360	841	33·12	196
D Purley (Pumping Station)	AECornwall-WalkerEsq . . .	5	1	0	225	829	32·63	176
D Sanderstead (Beechwood Road) . . .	E. Alexander, Esq.	5	1	0	370	836	32·90	193
South Croydon(Avondale Rd.)	Dr. A. D. Williams	5	2	3	225	817	32·15	...
D Wallington (Alcester Road)	F. C. Bayard, Esq.	5	4	1	140	774	30·46	201
Wallington (Alcester Road)	F. C. Bayard, Esq.	8	1	0	140	736	28·98	205
D Carshalton (Sewage Works)	F. C. Bayard, Esq.	5	1	0	118	750	29·54	171
D Beddington (Sewage Farm)	Croydon Corporation	5	1	0	129	634	24·94	179
D Croydon (Waddon New Road)	G. Corden, Esq.	5	1	0	146	750	29·78	190
BeddingtonCor. (Millgreen Rd) . . .	F. C. Bayard, Esq	5	5	0	77	735	28·94	..
D Mitcham (Brook Cottage)	F. C. Bayard, Esq.	5	1	0	100	714	28·09	156
D Wimbledon (Kingston Road)	H. A. Marshall, Esq	5	1	0	54	779	30·67	195
D Wimbledon (Trinity Road)	P. J. Bevan, Esq., C.E. . . .	5	1	0	53	714	28·13	164
D Wimbledon (Sewage Works)	J. Bowen Esq., C.E.	5	1	0	55	683	26·88	167
D Wimbledon Park (Dora Road) . . .	H. B. Ransom, Esq.	5	1	1	136	735	28·93	206
5.—THAMES—Mole & c. 229 sq. mi.								
Lowfield Heath(HuntsGreenHo) . . .	A. E. Robinson, Esq.	5	0	7	200	865	34·06	178
Charlwood (The Greenings)	Mrs. Innes	5	1	0	300	790	31·11	..
D Horley (Smallfield)	W.W.HughesD'Aeth Esq . . .	8	1	0	215	676	26·61	200
D Outwood (The Orchards)	F. C. Bayard, Esq.	5	1	0	280	768	30·22	202
D Dorking (StoneHouse,RoseHill) . .	Lt.-Col. J. R. Greenhill . . .	5	1	0	240	888	34·94	185
D Dorking (Denbies)	Mr. J. Ansell	5	0	9	610	857	33·74	199
D Dorking (Pixham Firs)	J. Croft Deverell, Esq. . . .	8	0	6	150	847	33·33	193
D Brockham (North Lodge)	H. R. Kempe, Esq., C.E. . . .	5	0	9	160	796	31·34	164
D Reigate (Hartwood)	R. C. Clutton, Esq.	5	1	0	174	741	29·19	174
D South Nutfield (Hale Edge)	R. C. Grant, Esq.	5	1	0	270	718	28·27	181
D Earlswood (Sewage Farm)	F. T. Clayton, Esq., C.E. . .	5	1	6	196	760	29·90	183
D Redhill (Station Road)	W. H. Fowler, Esq.	5	18	0	270	757	29·82	180
D Redhill (Wigmore)	W. A. Gunner, Esq.	5	1	0	250	783	30·82	182
D Redhill (Warwick Road)	AECornwall-WalkrEsq . . .	5	1	6	284	796	31·33	192
D Reigate (The Knowle)	G. Weston, Esq.	5	1	0	390	753	29·65	176
D Reigate (Undercroft)	Paul Crosfield, Esq.	5	0	4	242	785	30·92	194
D Reigate (Wray Lodge)	A. Rosling, Esq.	5	1	0	316	796	31·33	178
D Reigate (Wray Park Road)	Mr. F. W. Hedges	5	1	0	281	802	31·57	183
D Reigate (Castle Grounds)	F. T. Clayton, Esq., C.E. . .	5	1	6	350	762	29·98	197
Reigate (Castle Keep)	E. H. Goad, Esq.	5	0	7	..	812	31·98	..
D Reigate (Gas Works)	F. S. Smith, Esq.	8	1	0	290	756	29·77	147
Reigate (Northcote)	Mr. A. R. Bashford	5	1	3	364	820	32·30	162
Reigate (Laglands)	J. Welch, Esq.	5	1	2	375	822	32·35	178
D Nutfield Priory	Mrs. Fielden	8	1	2	468	787	31·00	206
D Nutfield Priory	Mr. J. Moffatt	8	1	2	331	817	32·18	205
Bletchingley (South Park Fm.) . . .	W. Lambert, Esq.	5	0	4	340	833	32·80	193
Betchworth (Snower Hill)	T. Du Buisson, Esq.	8	0	9	250	750	29·51	184

DIVISION II.—SOUTH EASTERN COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Diam.	Rain Gauge.			Depth of Rain.		Days with ·01 in or more	
			Height Above Ground Sea Level			1918			
SURREY—(continued).			in.	ft.	in.	feet	mm. inches		
5.—THAMES - Mole & c—(con.)									
	Betchworth (Sandhills)	C. J. Whittington, Esq.	5	1	0	250	823	32·41	194
D	Buckland (The White House)	J. Herbert Scrutton, Esq.	8	1	6	260	849	33·41	161
	Reigate(HatherlowObservatory)S. T. Klein, Esq.		5	0	9	405	787	30·97	181
	Mickleham (Juniper Hall)	G. MacAndrew, Esq.	5	1	0	183	851	33·49	..
D	Headley Rectory	Rev. T. E. R. Phillips	5	1	0	575	813	32·01	192
D	Headley (The Hurst)	Mrs. Lyall	5	1	3	420	796	31·35	166
	Walton (Walton Manor)	Mr. T. W. Dudley	5	1	0	600	813	32·01	190
D	Ashstead (Oakfield Road)	H. F. Acocks, Esq.	5	1	4	180	716	28·21	160
D	Ashstead (Oakfield Road)	H. F. Acocks, Esq.	5	1	0	180	726	28·59	160
D	Ashstead (The Hut)	F. C. Bayard, Esq.	5	0	5	200	735	28·93	174
D	Cobham (Hatchford Park)	Sir H. B. Samuelson, Bart.	5	1	0	170	995	39·18	146
	Oxshott (Oaklands)	Surrey Advertiser		0	6	246	806	31·74	..
D	Banstead (The Hall)	F. C. Bayard, E q.	8	1	0	480	809	31·85	185
D	Epsom (The Durdans)	J. Barclay, Esq.	8	0	11	217	782	30·80	176
D	Epsom (Hylands Road)	F. Holroyd, Esq.	5	1	0	220	781	30·76	179
D	Epsom (Waterworks)	E. R. Capon, Esq.	8	1	0	125	735	28·93	175
D	Weybridge (Burcote)	Mrs. C. Sanger	5	0	9	117	776	30·57	167
D	Sutton (Camborne Road)	F. E. Wright, Esq.	5	1	0	250	767	30·20	180
D	Claygate (Hertslets)	N. C. Armitage, Esq.	5	1	0	106	742	29·22	169
D	Esher (Sewage Works)	F. C. Bayard, Esq.	5	1	0	42	684	26·94	165
D	Sutton (High Sch., Cheam Rd.)	Miss A. D. Hunt	5	1	0	197	644	25·37	150
D	Sutton (Water Works)	W. Vaux Graham, Esq. C.E.	5	1	6	166	749	29·48	170
D	Sutton (Sewage Works)	W. H. Grieves, Esq., C.E.	8	1	6	94	892	35·11	154
D	Surbiton (Seething Wells)	Met. Water Board.	5	0	10	34	664	26·15	172
D	East Molesey (Ember House)	Wilfrid Taylor, Esq.	5	1	0	30	759	29·89	143
D	West Molesey (Walton Works)	Met. Water Board.	5	0	6	35	625	24·59	159
D	New Malden (Sewage Works)	R. H. Jeffes, Esq., C.E.	5	1	3	48	752	29·61?	156
D	New Malden (Edenfield)	W. J. Carter, Esq.	5	1	0	40	744	29·27	173
	Kingston (Palace Road)	No. 1 Charles Price, Esq.	5	0	10	30	725	28·54	164
	Kingston (Palace Road)	No. 2 Charles Price, Esq.	5	0	10	30	715	28·14	164
D	Kingston (County Hall)	E. Underwood, Esq.	5	0	9	31	716	28·19	157
D	Kingston Sewage Works	F. C. Bayard, Esq.	5	1	0	25	757	29·81	169
D	Wimbledon (Raynes Park)	J. Bowen Esq., C.E.	5	1	0	50	727	28·62	172
	Wimbledon (Merton Hall Rd.)	Rev. J. A. Barrow-Clough.	5	1	0	..	730	28·73	179
D	Wimbledon (The Downs)	F. C. Bayard, Esq.	5	1	1	162	749	29·48	181
D	Richmond (The Terrace)	F. C. Bayard, Esq.	8	1	6	109	728	28·68	167
	Richmond (Kew Observatory) (R)	Meteorological Office	11	1	9	18	713	28·07	179
D	Richmond (Kew Observatory)	Meteorological Office	8	1	0	20	709	27·90	185
D	Barnes (Castelnau)	C. F. B. Marshall, Esq.	5	1	0	25	776	30·56	187
6.—THAMES—Wey. 236 sq. mi.									
D	Haslemere (Whitwell Hatch)	The Marquis of Sligo.	5	1	0	680	830	32·67	151
D	Haslemere (Red Court)	Mrs. J. Thynne	5	1	6	654	834	32·83	190
D	Haslemere (Courts Hill)	late Miss Penfold.	8	4	8	481	851	33·50	187
D	Haslemere (U.D.C. Depot)	A. G. Whitcher, Esq.	5	1	0	475	863	33·96	198
D	Haslemere (Hangerfield)	J. P. Trew, Esq.	5	1	1	680	854	33·62	185
D	Haslemere (Frensham Hall) No. 1	Samuel Kevan, Esq.	5	0	9	475	880	34·66	174
D	Haslemere (Frensham Hall) No. 2	Samuel Kevan, Esq.	5	2	3	625	909	35·80	175
D	Haslemere (Hazelhurst)	Mrs. T. P. Newman	5	1	0	550	814	35·97	197
	Hindhead (Stocatley Hall)	Mr. H. Simmons	5	1	0	800	862	33·94	..
	Witley (Sandhills)	L. W. Lodge, Esq.	8	1	0	450	834	32·83	198

DIVISION II.—SOUTH EASTERN COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain.	Days with 0.1 in. or more	
		Diam.	Height Above Ground Sea Level				
					1918		
SURREY—(continued)		in.	ft.	in.	feet	mm.	inches
6.—THAMES—Wey—(con.)							
D Witley (King Edward's School)	J. Wood, Esq.	5	1	3	330	731	28.79 196
D Witley (Great Roke)	C. W. Dixon, Esq.	5	5	6	300	730	28.74 165
D Witley (The Mount)	Mrs. J. H. Foster	5	1	0	375	851	33.51 216
D Hascombe Place	C. T. Musgrave, Esq. ...	5	1	0	390	811	31.92 162
D Cranleigh (Stonewall)	W. Welch, Esq.	5	1	0	182	792	31.19 188
D Bramley (Grafham Grange) ..	S. A. Shepherd, Esq. ...	8	0	4	180	762	30.01 147
D Ewhurst (Downhurst Lodge)...	Mr. C. W. Bradfield	5	1	0	350	847	33.34 194
Ewhurst (Garlands)	Sir G. Johnston, Bart. ...	5	2	6	360	824	32.45 176
D Ewhurst (Coneyhurst)	Mr. J. Russell	8	1	0	581	801	31.54 196
Ewhurst (Woolpit)	Mr. H. W. Perrin	5	1	6	600	829	32.64 ..
Godalming (Milford House) ...	Capt. F. D. Webb	5	1	0	304	790	31.10 ..
D Shamley Green (Lee Crouch) ..	P. E. W. Street, Esq. ..	5	1	0	165	744	29.28 180
D Godalming (Peperharow Road) .	F. R. Rushton, Esq. ...	5	0	8	190	725	28.55 192
D Godalming (Charterhouse)	O. H. Latter, Esq.	5	1	0	315	721	28.40 185
D Peper Harow (Glebe House) ..	George Marsh, Esq.	5	1	0	200	716	28.20 161
D Shackleford (Hall Place)	W. E. Horne, Esq., M.P. 8	1	6	200	717	28.24 171	
D Shackleford (Abbot's Wood) ..	Hon. A. J. Davey	5	1	0	350	742	29.21 175
Peaslake (Dewdney)	F. G. Ogilvie, Esq., C.B. 5	1	0	532	853	33.57 ..	
D Bramley (The Limes)	Rev. C. J. Etty	5	1	0	136	790	31.10 176
Wonersh (Little Tangle)	Mr. S. Pankhurst	5	1	0	200	730	28.72 ..
D Farnham (Charleshill)	Mrs. Oliver	5	1	0	230	714	28.13 178
D Shere (Manor House)	Sir R. M. Bray	6x8	4	0	330	796	31.35 174
Albury (Dalton Hill Gardens) ..	<i>Surrey Advertiser</i> .....	..	..	..	..	693	27.30 ..
D Abinger Hall	F. C. Bayard, Esq.	8	2	0	320	908	35.75 181
D Farnham (Crooksbury Ridges) .	F. R. Walters, Esq. M.D. .5	1	4	440	793	31.21 217	
D Farnham (Short Heath)	Morris Birkbeck, Esq. ..	5	1	0	352	807	31.76 215
D Farnham (Short Heath Lodge) .	Col. G. Chrystie	5	1	0	365	757	29.82 198
Wanborough (The Schools) ...	<i>Surrey Advertiser</i> .....	..	..	..	..	850	33.45 ..
Gomshall (The Croft)	<i>Surrey Advertiser</i> .....	..	..	..	..	803	31.63 ..
D Guildford (Piccard's Rough) ..	H. A. Powell, Esq., M.D. .5	2	0	330	624	24.55 167	
Guildford (Briarfield)	Miss M. E. Swaine	5	2	6	300	716	28.20 145
Guildford (Roy.Gram.School) .	H. N. Weller, Esq.	5	1	2	200	654	25.73 ..
D Guildford (Newlands Corner) ..	Mr. H. Tann	5	1	6	550	762	30.02 199
D Guildford (Cross Lanes)	F. F. Smallpeice, Esq. .	5	0	8	200	736	28.97 183
D Merrow (Craigie)	Miss Lomer	5	0	9	250	713	28.07 172
Merrow (Craigie)	<i>Paddock</i> Miss Lomer	5	0	9	250	730	28.74 172
High Clandon	F. B. Eastwood, Esq. ...	5	0	6	500	819	32.23 ..
D Horsley Towers	The Earl of Lovelace ...	8	1	2	285	869	34.23 189
Worplesdon (Perry Hill Farm) .	<i>Surrey Advertiser</i>	5	1	3	140	844	33.22 ..
Worplesdon (Perry Hill School)	<i>Surrey Advertiser</i> .....	..	..	..	..	803	31.62 ..
D Worplesdon Hill (Pinewood) ..	G. W. Hayes, Esq.	5	1	4	180	784	30.88 177
Pirbright	<i>Surrey Advertiser</i>	5	0	6	160	764	30.09 ..
Mayford	A. R. Ricardo, Esq.	5	1	4	145	775	30.50 ..
Ripley (Ripley Court)	<i>Surrey Advertiser</i> .....	..	..	..	..	761	29.97 ..
D Woking (Hook Heath)	W. S. Patterson, Esq. ..	5	1	0	160	776	30.56 164
D Woking (Northwood)	Capt. S. Price-Williams R.E. 5	1	5	114	756	29.75 168	
D Woking (The Grange)	Rev. F. Wilson	5	0	8	78	781	30.75 186
D Woking (The Green)	Mrs. Howlett	5	0	9	130	772	30.39 160
Woking (Normanhurst)	George Duffus, Esq.	5	2	0	180	744	29.27 ..
D Pyrford (Wintergreen Wood) ..	Lady Davy	6	1	0	150	698	27.47 148

DIVISION II.—SOUTH EASTERN COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.				Depth of Rain. 1918	Days with ·01 in. or more
		Diam.	Height Above Ground Sea Level				
SURREY—(continued).		in.	ft.	in.	feet	mm.	inches
6.—THAMES—Wey—(con.)							
D Pyrford (Kelmars)*	H. D. Richardson, Esq.	5	1	0	100	734	28·91 153
D Horsell (The Vicarage)	Rev. Norman Pares	5	1	9	140	705	30·12 178
D Wisley (R.H S. Gardens)	S. T. Wright, Esq.*	8	1	0	150	751	29·56 163
D Wisley (West Hall Gardens)	Mr. G. Carpenter	5	1	6	61	780	30·69 142
D West Byfleet (Kilmeena)	F. Littleboy, Esq.	5	1	0	100	760	29·90 178
D West Byfleet (Hollywood)	Allanson Bailey, Esq.	5	1	1	100	751	29·56 186
D Byfleet (Woodbine Cottage)	J. E. Dowell, Esq.	5	1	1	59	740	29·15 170
D Weybridge (St. George's Hill)	H. J. Bond, Esq.	5	0	8	115	725	28·55 169
D Weybridge (Heath Field)	Miss A. T. Gardiner	5	1	0	100	757	29·80 163
D Weybridge (West Oaks)	A. Whittet, Esq.	5	1	0	36	699	27·53 190
D Weybridge (Station Road)	H. K. G. Rogers, Esq.	5	1	0	85	758	29·86 185
Weybridge (Windsor Walk)	Surrey Advertiser	..	..	..	..	780	30·72 ..
7.—THAMES—Bourne. 55 sq. mi.							
D Brookwood (Knapp Hill)	Mr. G. C. H. Simmonds	5	1	0	181	778	30·62 199
Brookwood (Knapp H., Lynbr'k)	Charles Wigan, Esq.	5	1	8	200	735	28·95 176
D Chobham (Sandpit Hall)	K. A. H. Power, Esq.	5	1	0	100	762	29·99 181
D Chobham (The Manor House)	F. A. Walter, Esq.	5	1	0	150	772	30·38 181
Bagshot (Pennyhill Park)	Surrey Advertiser	..	..	..	..	825	32·47 ..
D Chertsey (Ottershaw)	Mrs. R. H. Otter	5	1	0	200	764	30·10 197
Chertsey (Ottershaw Park)	Surrey Advertiser	..	..	..	..	879	34·62 ..
Chertsey (Long Cross)	F. Arnold Baker, Esq.	5	3	0	205	660	25·98? ..
D Chertsey (Botleys Park Gardens)	H. Gosling, Esq.	5	1	5	111	724	28·50 167
D Virginia Water (S. Ann's Heath)	Rev. J. Peck	8	1	1	120	705	27·75 184
D Egham Park	J. R. Fitzgerald, Esq.	4	0	10	150	758	29·83 162
D Englefield Green (Queenswood)	W. G. Rigden, Esq.	8	2	0	200	861	33·91 192
8.—THAMES—Loddon. 17 sq. mi.							
D Frimley Green Waterworks	F. J. Garland, Esq.	5	2	6	220	710	27·95 160
D Frimley Green (Brompton San.)	A. L. Bartlett, Esq.	5	0	4	380	846	33·31 191
D Frimley Green (Ridgemount)	C. C. Haviland, Esq.	5	0	9	350	820	32·28 211
D Frimley (Tomlinscote)	Mr. T. Dawson	5	1	9	200	775	30·52 199
D Camberley (Way's End)	E. Ernest Green, Esq.	5	0	11	300	718	28·27 185
KENT. (Area, 1532 sq. mi.)							
1.—ROTHER & C. 217 sq. mi.							
Hawkhurst (Hensill)	F. Ross Thomson, Esq.	5	3	0	200	694	27·32 152
Tenterden (Summerhill)	Mrs. Wilkin	8	1	0	150	670	26·39 182
Tenterden (Summerhill)	Mrs. Wilkin	5	1	0	150	678	26·68 182
Tenterden (Ashenden)	Major Herbert Neve	5	1	0	190	662	26·05 182
D Tenterden (View Tower)	J. Ellis Mace, Esq.	8	1	5	190	690	27·15 201
D Tenterden (View Tow.)	Snowdon J. Ellis Mace, Esq.	8	1	5	190	672	26·47 185
Cranbrook (Hartley)	Mrs. Pile	5	2	0	403	731	28·78 ..
D Benenden (National Sanat'm)	Dr. Niven Robertson	5	1	0	180	630	24·82 170
Biddenden (Sandpit Wood)	J. Ellis Mace, Esq.	5	1	0	218	712	28·01 ..
Dungeness	Meteorological Office	8	1	3	21	581	22·87 168
Snave (Poplar House)	T. K. Tickner, Esq.	8	2	3	10	631	24·84 ..
D Hythe	J. Singleton Green, Esq.	5	1	0	0	652	25·67 179
D Hythe (Sandling Park)	Rt. Hon. L. Hardy, M.P.	8	1	0	160	880	34·65 181
Sandgate	H. Evans, Esq., C.E.	5	4	0	176	663	26·09 168
D Folkestone (Borough Sanat'm)	M.G. Yunge Bateman, Esq	5	1	0	110	638	25·13 175
* Formerly called Southbourne.							

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DIVISION II.—SOUTH EASTERN COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.		Depth of Rain. 1918	Days with 0.1 in. or more
		Diam.	Height Above Ground Sea Level		
KENT—(continued).		in.	ft. in. feet	mm.	inches
1.—ROTHER & C—(con.)					
D Folkestone (Radnor Park)	A. E. Nichols, Esq., C.E.	8	6 0 127	513	20.18 175
D Folkestone (Cheriton Road)	J. Duncan Walker, Esq.	5	1 0 160	697	27.45 179
D Folkestone (Cherry Gardens)	H. T. Turner, Esq.	5	1 6 230	718	28.25 176
D Capel (Lower Standen)	H. T. Turner, Esq.	5	2 11 250	714	28.13 166
D Capel	The Air Ministry	8	0 11 480	648	25.52 181
Paddlesworth (Hawkinge Air St.)	The Air Ministry	5	1 0 538	815	32.08 198
Dover	W. C. Hawke, Esq. per M.O.	8	1 0 20	737	29.02 184
D Dover (Water Works)	W. C. Hawke, Esq.	5	1 6 200	671	26.42 155
D Kearsney (Chilton Farm)	W. C. Hawke, Esq.	5	1 6 127	701	27.61 149
2.—STOUR & C. 386 sq. mi.					
D Lyminge (Elham Valley W.W.)	H. E. Stilgoe, Esq., C.E.	5	1 6 450	761	29.97 186
D Dover (Martin Mill Pump Stat.)	F. L. Ball, Esq.	5	11 0 298	639	25.17 166
D Kennington (Coombe Cottage)	J. C. Dell, Esq.	5	1 0 190	772	30.38 157
Ashford (Eastwell Pk Gds.) (R.)	Mr. J. G. Weston	10	3 6 410	701	27.59 155
D Crundale (Winchcombe Farm)	W. Higgs, Esq.	5	5 0 350	742	29.22 185
D Charing Pumping Station	F. L. Ball, Esq.	5	1 0 593	704	27.72 163
M Deal and Walmer W.W.	A. Mantle, Esq.	12	1 0 110	636	25.05 ..
D Deal and Walmer W.W.	A. Mantle, Esq.	5	1 0 110	634	24.96 163
D Great Mongeham Rectory	Rev. W. H. Rammell	5	1 8 100	602	23.70 158
D Eastry (Brewery)	T. Nevill Cheatle, Esq.	5	0 10 85	648	25.51 169
D Sandwich (Upton House, Word)	Capt. W. Elwin Napier	5	1 0 32	596	23.46 167
Molash (Wytherling Court)	H. Murton, Esq.	5	1 3 376	764	30.09 ..
D Chilham (Lower Ensden)	F. Ivo Neame, Esq.	5	4 10 223	670	26.36 156
Wingham (Margate W.W.)	Mr. W. R. Hosking	5	1 0 138	637	25.07 140
Canterbury (Oaten Hill Ho.)	Miss Carr	5	1 3 50	680	26.78 ..
Canterbury (Medical Hall)	A. Lander, Esq., per M.O.	5	0 11 40	643	25.32 142
Canterbury (Irrigation Works)	C. Terry, Esq., C.E.	5	2 6 15	669	26.34 162
D Canterbury (St. Thomas' Hill)	P. J. Spillett, Esq.	5	0 6 230	663	26.09 172
D Wickhambreux (The Willows)	A. Baird, Esq.	5	0 8 22	672	26.46 183
Minster (Gas Works)	W. Thomson, Esq., C.E.	5	1 0 60	597	23.49 ..
D Ramsgate (Southwood W. W.)	W. Thomson, Esq., C.E.	8	1 0 169	583	22.95 152
D Ramsgate (Archer House)	Miss L.M. Wainwright	5	0 11 75	565	22.23 172
D Reculver	Allington Collard, Esq.	5	5 2 27	542	21.32 157
D St. Peter's	Rev. H. C. V. Snowden	5	0 9 140	607	23.90 169
D St. Peter's Court	A. J. Richardson, Esq.	5	1 0 135	611	24.05 153
D Birchington (Hollydene)	W. Tomlin, Esq., Junr.	6	6 0 75	578	22.77 148
Birchington (Rose Bank)	Mr. G. Hoare	5	5 0 45	589	23.19 ..
Birchington (Fernleigh)	R. Grant, Esq.	5	1 2 50	582	22.92 166
D Margate (Cliftonville)	C. J. Pemble, Esq.	5	1 0 53	556	21.90 155
3.—SWALE & C. 167 sq. mi.					
D Selling (Luton)	F. Ivo Neame, Esq.	5	4 9 263	713	28.08 167
D Bicknor Rectory	Rev. E. W. Edwards	5	1 6 517	725	28.54 163
D Ospringe (Lorenden)	Walter C. Stunt, Esq.	5	1 6 180	611	24.04 162
Teynham (New Gardens)	Col. J. F. Honeyball	5	1 5 30	560	22.05 ..
Faversham (Uplees Marshes)	W. J. Wright, Esq.	5	4 4 9	456	17.97 ..
D Whitstable (Western Ho.) No.1	J. W. Hayward, Esq.	5	0 10 17	491	19.32 158
D Whitstable (Western Ho.) No.2	J. W. Hayward, Esq.	5	0 11 17	499	19.64 160
Herne Bay (Water Works)	J. Roberts, Esq.	5	1 0 130	503	19.79 ..
Sheppey (Eastch'ch, Old Rides)	H. C. Warren, Esq.	5	2 0 40	528	20.80 ..

DIVISION II.—SOUTH EASTERN COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Diam.	Rain Gauge.		Depth of Rain. 1918	Days with ·01 in. or more		
			Height Above Ground	Sea Level				
			in.	ft. in.	feet	mm.	inches	
KENT—(continued).								
4.—MEDWAY. 506 sq. mi.								
D Woodchurch (Hengherst)	Capt. Somerset Webb . . .	5	1	0	152	640	25·20	170
D Kilndown School	J. A. Ager, Esq.	5	1	0	365	776	30·53	155
Scotney Castle	E. W. Hussey, Esq.	5	3	9	203	736	28·97	..
D Goudhurst (Maypole)	G. Parker Hinds, Esq. . .	8	1	8	412	764	30·07	143
Goudhurst (Brandfold)	Mr. C. Markwell	5	2	0	238	780	30·73	179
D Horsmonden (Broad Ford House)	Mrs. L. E. Maude	5	1	0	96	728	28·64	177
D Biddenden (Augustus Villa)	E. Donne, Esq.	5	0	8	175	644	25·34	158
D Tunbridge Wells (Hawkenbury)	D. W. Horner, Esq.	5	1	6	435	810	31·90	169
D Tunbridge Wells (Calverley Park)	Med. Officer of Health . .	5	1	0	356	735	28·95	180
D Tunbridge Wells (Courtlands) (R)	E. Weldon, Esq.	8	5	6	470	766	30·17	163
D Speldhurst (Etherton Hill)	late E. W. Winton, Esq. .	5	1	5	282	732	28·80	178
D Pembury (The Spring)	Miss L. M. Fowler	5	1	6	..	748	29·45	171
D Pembury Waterworks	W. H. Maxwell, Esq., C.E. .	8	1	8	197	721	28·38	179
D Paddock Wood (Matfield Grange)	J. A. Perkin, Esq.	5	0	9	370	794	31·26	194
Paddock Wood (Matfield)	D'Arcy W. Reeve, Esq. . .	5	1	0	321	778	30·63	..
D Southborough (The Old Hall)	G. H. Beecheno, Esq. . . .	5	1	0	375	754	29·68	152
D Edenbridge (Falconhurst)	Hon. Mrs. John Talbot . .	5	1	6	375	818	32·20	188
D Markbeech (Edells)	Miss M. F. Pearse	5	1	0	320	648	25·52	216
D Markbeech (High Buckhurst)	Edmund Dean, Esq.	5	1	0	400	753	29·65	185
D Chiddingstone Hoath (Truggers)	Alsager Vian, Esq.	5	0	8	360	844	33·22	195
Staplehurst (Copp William Farm)	J. Norris, Esq.	5	1	4	100	681	26·80	178
D Penshurst (The Mount)	Mr. J. M. Sturgess	5	0	9	265	700	27·55	167
D Penshurst Place	Lord De L'Isle & Dudley .	5	1	0	115	797	31·37	206
D Tonbridge (Mabledon Park)	J. F. W. Deacon, Esq. . .	5	1	2	190	742	29·20	168
Tonbridge (Brooklands)	G. J. Kimmins, Esq.	5	0	10	120	698	27·46	163
Tonbridge (Pinnacles)	A. H. Neve, Esq.	5	1	0	140	728	28·64	199
M Tonbridge (Pinnacles)	A. H. Neve, Esq.	5	1	0	140	723	28·46	..
D Hadlow Place	C. J. G. Hulkes, Esq. . . .	5	1	0	50	702	27·62	214
D Hildenborough (Hollanden Ho.)	C. H. Scott, Esq.	8	1	0	99	707	27·84	194
D Ulcombe Place	A. O. Walker, Esq.	5	1	0	350	660	26·00	168
D Linton Park	Mr. C. Pratt	5	0	8	..	699	27·51	176
D Langley (Rumwood Court)	Mr. W. J. Gould	5	1	9	354	704	27·72	193
D Otham (Synyards)	Ambrose Boysen, Esq. . .	5	1	0	315	716	28·18	215
Waterringbury (The Limes)	Alan Lambert, Esq.	5	1	0	130	690	27·17	205
D Waterringbury (Manor Farm)	W. Pye English, Esq. . . .	5	3	0	152	682	26·83	189
D Sevenoaks (River Hill)	Lt.-Col. J. M. Rogers, D.S.O.	8	3	0	535	800	31·51	221
D Sevenoaks (Soar Farm, Plaxtol)	H. Stonham, Esq.	5	3	0	300	737	29·03?	158
D Maidstone (Lower Tovil)	Laurence Green, Esq. . . .	5	1	0	30	653	25·70	200
D Maidstone (W.W., Barming)	W. J. Ware, Esq., C.E. . .	5	1	6	250	664	26·13	178
D Maidstone (Brenchley Gardens)	T. F. Bunting, Esq. C.E. .	5	0	9	50	676	26·63	179
D Maidstone (Mill Street)	T. F. Bunting, Esq., C.E. .	8	6	0	38	666	26·22	180
D East Malling (Broadwater)	C. B. Mercer, Esq.	5	1	6	169	738	29·04	189
Maidstone (Allington Lock)	Mr. W. Smith	5	1	0	45	625	24·61	167
Maidstone (Allington Nursery)	Messrs. G. Bunyard & Co. .	5	2	2	104	654	25·74	..
D Detling (The Croft)	R. Cooke, Esq.	5	1	2	330	740	29·14	225
D Detling (The Croft)	R. Cooke, Esq.	5	1	0	330	743	29·26	234
M Detling (Pollhill Fields)	R. Cooke, Esq.	5	1	0	..	673	26·51	..
Halling Pumping Station	F. L. Ball, Esq.	5	1	0	75	668	26·31	..
D Rainham (Mardale House)	Dr. F. W. H. Penfold . . .	5	1	0	85	614	24·17	174
D Chatham (Luton W.W.)	W. Coles Finch, Esq. . . .	5	3	0	88	636	25·04	157

DIVISION II.—SOUTH EASTERN COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.				Depth of Rain.		Days with ·01 in. or more
		Diam.	Height Above Ground Sea Level			1918		
KENT—(continued).		in.	ft.	in.	feet	mm.	inches	
4.—MEDWAY—(con.)								
D Rochester (Knights Place)	Miss F. H. Pye	5	3	0	320	677	26·64	163
Strood Water Works	W. Banks, Esq., C.E.	5	3	0	112	632	24·87	174
D Frindsbury (The Shrubbery) . . .	Warwick Stunt, Esq.	5	1	6	150	606	23·85	163
D Frindsbury (Stonehouse Farm) . .	E. W. Wood, Esq.	5	5	0	20	667	26·27	147
D Isle of Grain	The Air Ministry	8	1	0	17	428?	16·87	145
D Hoo St. Mary (St. Mary's Hall) . .	H. Pye, Esq.	5	5	6	146	597	23·50	167
5.—THAMES—Darent. 256 sq. mi.								
D Westerham (Quebec Square)	Met. Water Board	5	1	0	380	881	34·68	180
D Westerham (Hill Pumping Stat.) .	Met. Water Board	5	1	0	539	830	32·69	191
M Sevenoaks (Tonbdge Rd Res.) . . .	A. Grainger, Esq.	5	1	6	556	808	31·79	..
D Sevenoaks (The Old House)	W. Tattersall, Esq.	8	1	0	510	823	32·44	202
D Sevenoaks (Speldhurst Close) . .	Rev. D. D. Mackinnon . . .	5	1	0	470	773	30·42	196
D Tatsfield (Betsom Hill)	Met. Water Board	5	0	7	820	872	34·33	185
Seal (St. Lawrence Reservoir) . . .	A. Grainger, Esq.	8	1	0	665	805	31·70	..
Seal (Oak Bank Reservoir)	A. Grainger Esq.	8	1	0	550	787	30·98	..
D Seal (Wilderness Gardens)	Mr. J. Shelton	5	1	0	300	769	30·26	183
Seal (Kemsing Pumping Stat.) . . .	A. Grainger, Esq.	5	1	0	292	781	30·75	..
D Sevenoaks (Chevening Gardens) .	Mr. J. C. Sutton	5	1	0	360	812	31·98	186
D Knockholt (Kent Waterworks) . .	Met. Water Board	5	1	0	785	801	31·54	176
M Knockholt (Kent Waterworks) . .	Met. Water Board	5	24	6	812	762	30·00	..
D Otford (Beechy Lees)	Mr. R. Edwards	5	0	10	480	801	31·52	197
Downe (Petleys)	G. N. Murton, Esq.	5	0	11	..	788	31·04	..
D Downe (Council School)	A. J. Ridge, Esq.	5	0	8	500	838	32·98	222
D Chelsfield (Woodlands)	A. T. Waring, Esq.	5	4	4	400	690	27·18	182
D Keston (Forest Lodge)	F. C. Bayard, Esq.	5	1	0	300	822	32·37	173
D West Wickham (Wickham Court) .	F. C. Bayard, Esq.	5	1	2	300	779	30·66	167
D Hayes (Hayes Place)	F. C. Bayard, Esq.	8	1	0	350	780	30·73	169
D Orpington (Kent Waterworks) . .	Met. Water Board	5	1	0	220	760	29·92	183
Orpington (Lynwood)	W. Jones, Esq.	5	1	4	272	726	28·60	..
Meopham (The Chestnuts)	Jesse Garratt, Esq.	5	2	0	290	684	26·95	172
D Cobham (Sole Street House) . . .	J. Scratton, Esq.	5	1	8	311	739	29·09	192
D Cobham (Scaler's Hill)	A. W. Booth, Esq.	5	1	10	300	772	30·40	160
D Bromley Common (Elmfield) . . .	Rev. J. P. Faunthorpe . . .	5	0	9	240	760	29·91	180
D Bickley (Sunnydene)	Sir J. Wrench Towse	5	1	0	227	773	30·44	169
D Bickley (St. Luke's Vicarage) . .	Rev. C. C. Gosselin	5	2	0	..	736	28·99	176
D Bickley (Farrants)	(R) L. E. Chalmers, Esq. . .	8	3	6	300	702	27·65	196
D Bromley (Hazelcroft)	Rev. H. A. Soames	5	1	0	180	789	31·08	179
D Bromley (King's Avenue)	A. Malden, Esq.	5	1	6	180	756	29·76	183
D Bromley (The Palace)	F. C. Bayard, Esq.	5	1	0	187	770	30·31	140
Bromley (Gilbert Road)	Edward Kinder, Esq. . . .	5	1	0	200	771	30·34	..
D Beckenham (Croydon Road) . . .	J. A. Angell, Esq., C.E. . .	8	1	0	110	885	34·85	200
D Chislehurst (Hawkwood)	F. C. Bayard, Esq.	5	1	0	300	703	27·69	143
D Sidcup (Beech View)	Miss Darrell	5	0	10	..	701	27·60	180
D Southfleet (Kent Waterworks) . .	Met. Water Board	5	1	0	82	635	25·01	168
D Wilmington (Kent Waterw'ks) .	Met. Water Board	5	1	0	25	602	23·69	149
D Dartford (West Hill House) . . .	F. C. Bayard, Esq.	5	1	3	100	678	26·70	152
D Higham Waterworks	C. H. Clark, Esq.	8	1	0	142	747	29·42	200
D Higham (Oakleigh)	C. Lake, Esq.	5	1	2	25	611	24·04	140
D Erith (Crossness)	London County Council . .	14	0	6	16	686	26·99	173

DIVISION II.—SOUTH EASTERN COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.				Depth of Rain. 1918	Days with ≥ 1 in. or more
		Diam.	Height Above Ground Sea Level				
SUSSEX. (Area, 1458 sq. mi.)		in.	ft.	in.	feet	mm.	inches
1.—LAVANT & C. 175 sq. mi.							
D Selsey (Large Acres)...	Field g. E. Heron Allen, Esq.	5	1	0	25	633	24.93 187
D Selsey (Large Acres)...	Snowdon E. Heron Allen, Esq.	5	1	0	25	654	25.74 187
D Bognor (Waterloo Square)	A. G. Thompson, Esq., C.E.	8	1	0	21	592	23.33 172
D Bognor (Albert Road)	H. L. F. Guernonprez, Esq.	8	1	0	20	608	23.94 169
Felpham (Outerwyke)	F. J. Neale, Esq.	8	2	0	8	595	23.44 161
Bognor (Shripney)	R. A. Briggs, Esq., C.E.	5	1	0	25	677	26.67 ..
Bognor (Lidsey Lodge)	H. Neale, Esq.	8	1	2	25	678	26.71 155
Arundel (Bonhams, Yapton) ..	W. Harrison, Esq.	5	1	0	24	681	26.80 165
Arundel (Drove Farm, Yapton) ..	W. Harrison, Esq.	5	1	0	14	664	26.15 165
D Chichester (Westgate)	G. Ashley Tyacke, Esq.	8	0	6	40	722	28.44 188
D Chichester (Summersdale)	Rev. H. J. Peckham	5	1	0	100	766	30.15 196
D Chichester (West Broyle Gdns.)	T. Weller-Poley, Esq.	5	1	4	107	748	29.46 159
D West Bourne [Emsworth]	Rev. L. B. Birkett	5	1	0	30	716	28.17 196
D Funtington	J. A. Greenwood, Esq.	5	1	0	95	760	29.91 150
West Stoke Rectory	Rev. Preb. W. F. Shaw	5	1	0	176	790	31.10 154
D Chichester (Goodwood Gardns.)	Mr. F. Brock	5	1	3	133	842	33.14 197
D Watergate House [Emsworth] ..	W. M. Christy, Esq.	5	1	0	236	820	32.27 186
West Dean Park	Mr. W. H. Smith	10	1	6	190	821	32.31 142
Chilgrove House	Miss Woods	5	0	6	284	849	33.42 ..
D Compton House [Petersfield] ..	Miss K. B. Langdale	5	1	0	255	930	36.61 191
2.—ARUN. 285 sq. mi.							
D Littlehampton (Met. Station)	R. E. Booker, Esq.	5	1	0	10	653	25.72 169
D Tortington House	Mrs. Travers	5	0	8	25	729	28.71 144
D Patching Farm	Michael Drewitt, Esq.	5	1	0	180	823	32.41 159
West Chiltington (Gaywood) ...	E. Burney-Young, Esq.	5	0	8	134	805	31.68 ..
Cocking Rectory	Mrs. Randall	5	1	0	400	967	38.08 189
D Elsted (Telegraph House)	The Earl Russell	5	1	0	625	945	37.19 162
Bepton (Linch Farm)	G. Eames, Esq.	5	0	8	276	979	38.55 160
D Selham (Selham House)	C. C. Lacaita, Esq.	5	1	0	115	907	35.70 148
Stedham (Rotherhill)	Dr. W. A. Wills	8	0	8	170	914	35.97 ..
D Rogate (Durford Abbey Farm) ..	J. Harmsworth, Esq.	5	4	0	156	862	33.95 179
D Petworth Park Gardens	Mr. E. W. Pull	5	1	0	182	852	33.55 170
Tillington (River House)	Hon. Lady Cunliffe	5	1	0	230	757	29.82 166
Lodsworth	Lt. Col. E. O. Hollist, R.A.	8	2	0	230	724	28.50 152
Midhurst (K. Edward VII. San) ..	T. L. Evans, Esq. per M.O.	5	1	0	480	770	30.32 156
Wisbough Green (Lowfold) ...	B. de F. Osmaston, Esq.	5	1	6	120	688	27.10 152
Linchmere (Borden Wood) ..	E. G. Lamb, Esq.	8	1	0	260	874	34.39 ..
Linchmore (Hollycombe)	J. C. Hawkshaw, Esq.	8	6	6	550	803	31.63 ..
D Fernhurst (Blackdown House) ..	Lady Philipson Stow	5	1	0	550	804	31.67 179
D Lower Beeding (The Warren) ..	Leicester M. Reed, Esq.	5	0	10	430	858	33.79 161
D Horsham (Christ's Hospital) ..	A. E. Johnson, Esq.	8	1	0	170	789	31.06 176
D Horsham (Wimblehurst)	Miss E. M. Allcard	5	1	0	195	829	32.65 189
Slinfold (Rapkyns)	W. Duncan Knight, Esq.	5	1	0	170	728	28.65 ..
3.—ADUR & C. 237 sq. mi.							
D Rottingdean School	G. Mason, Esq.	5	1	0	120	709	27.93 156
D Worthing (Victoria Park)	Dr. R. H. Wilshaw	8	1	0	36	620	24.41 165
East Preston (Bay Trees)	Rev. J. B. Orme	5	0	9	25	722	28.41 177
D Worthing (Broadwater)	Edwin Apted, Esq.	5	5	6	30	682	26.86 172
D Brighton (Old Steyne)	F. W. Braybon, Esq.	5	1	0	32	700	27.58 178
D Hove (Marine Park)	Dr A. Griffith	8	1	0	40	663	26.12 182

DIVISION II.—SOUTH EASTERN COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.				Depth of Rain.		Days with ·01 in. or more
		Diam.	Height Above Ground Sea Level			1918		
SUSSEX—(con.)		in.	ft.	in.	feet	mm.	inches	
3.—ADUR & C—(con.)								
D BrightonWW(Goldstone Bot.)	J. Johnston, Esq., C.E.	8	0	7	140	690	27·16	170
D Brighton W.W. (Lewes Road)	J. Johnston, Esq., C.E.	8	4	9	140	785	30·89	184
D BrightonWW(Shoreham)	J. Johnston, Esq., C.E.	8	1	9	12	682	26·86	161
D BrightonWW(UpperPortslade)	J. Johnston, Esq., C.E.	8	1	3	167	744	29·27	191
D BrightonWW(Race Hill Res.)	J. Johnston, Esq., C.E.	8	1	0	466	814	32·05	185
Preston(TheKnowle,Withdeane)	P. J. Trouncer, Esq.	8	1	3	100	824	32·44	...
D Falmer (Brighton W. W.)	J. Johnston, Esq. C.E.	8	1	8	209	842	33·13	205
D Patcham (Brighton W. W.)	J. Johnston, Esq., C.E.	5	1	6	207	862	33·93	190
D Bramber (Burletts)	Hatton G. Sugden, Esq.	5	3	6	75	892	35·11	176
Steyning (The Crescent)	Mr. E. Hide	5	1	0	80	851	33·52	154
D Washington Vicarage	Rev. A. H. S. Patrick	5	1	0	251	772	30·39	198
D Hurstpierpoint (Danny Park)	Mr. J. J. Bunney	8	1	3	180	979	38·55	152
Ditchling (Sillwood House)	E. A. Martin, Esq.	5	2	0	220	887	34·92	..
D Wykehurst Park Gardens	Mr. T. Tyson	5	1	6	360	799	31·44	162
D Cuckfield (Hilfield House)	Miss A. K. O'Brien	5	1	0	300	909	35·80	186
Cuckfield (Workhouse)	Mr. E. Gosden, <i>per</i> M.O.	8	1	0	389	724	28·49	..
Cuckfield (Henmead Hall)	Mrs. Maxwell Campbell	5	3	5	365	831	32·73	198
Billingshurst (Duncan's Farm)	Miss Edith Beck	5	1	0	130	806	31·74	170
Lower Beeding (Leonardslee)	Sir E. G. Loder, Bart.	8	1	0	270	788	31·01	..
4.—OUSE. 224 sq. mi.								
D Seaford College	E. S. L. Young, Esq.	5	1	6	38	650	25·61	163
D Seaford (Bowden House School)	J. F. Thomas, Esq.	5	1	0	190	714	28·12	171
D Newhaven(PovertyBottomWW)	F. W. Laughlin, Esq.	8	1	1	51	735	28·94	156
D Lewes (Little Dene)	Miss B. Brand	8	0	11	93	1046	41·17?	203
Lewes (Cobbe Place)	Sir Albert F. A. Bosanquet	5	0	8	50	847	33·34	158
D Lewes (W.W., Kingston)	A. Wells, Esq.	8	1	3	13	906	35·65	198
D Isfield Place	Major H. King	5	1	0	41	824	32·46	176
Isfield Place <i>weekly g.</i>	Major H. King	5	1	0	41	796	31·36	..
Framfield (High Cross)	Maj. R. Lawrence Thornton	5	0	9	195	847	33·35	..
D Newick Rectory	Mrs. C. Powell	5	1	5	134	758	29·85	185
D Haywards Heath	Mr. J. E. Shirley	5	3	0	242	778	30·65	178
D Buxted Park	Hon. H. B. Portman	8	1	0	94	999	39·34	195
Buxted (Strawberry Hall)	C. Rintoul, Esq.	5	1	0	180	837	32·97	179
D Buxted (Hadlow Down)	C. H. Scriven, Esq.	5	1	6	350	890	35·03	175
D Mayfield (Five Ashes)	Miss Emily Aston	5	1	5	300	896	35·27	208
Lindfield (Gravelye)	Lewis Weedon, Esq.	5	0	11	177	795	31·31	198
Ardingly (Lywood House)	G. Forrester Scott, Esq.	5	0	9	240	832	32·74	198
D Ardingly (Brook House)	H. R. G. Clarke, Esq.	8	1	0	240	840	33·08	170
D Ardingly (Wakehurst Place)	G. W. E. Loder, Esq.	8	1	3	437	903	35·56	191
D Horsted Keynes (Birchgrove)	Miss G. C. Price	5	0	9	400	782	30·77	197
D Balcombe (The Gables)	Mr. G. J. Warren	8	1	3	358	893	35·15	203
D Balcombe (Stockcroft)	R. Newton, Esq.	5	1	1	341	881	34·69	193
D Balcombe (Waterworks)	F. Martin, Esq., C.E.	8	1	0	471	912	35·92	157
5.—CUCKMERE & C. 189 sq. mi.								
D Beachy Head	The Air Ministry	8	1	0	506	688	27·10	164
D Eastbourne (Wilmington Sq.)	Dr. W. G. Willoughby	5	1	0	39	783	30·82	192
Eastbourne (Staveley Cross)	J. Weston, Esq.	5	1	6	110	778	30·62	186
D Eastbourne (Arundel Road)	Miss Woodd	8	1	6	87	845	33·26	161
Eastbourne (Arundel Road)	J. C. Wright, Esq.	5	1	0	70	811	31·94	..
D West Dean	A. J. Howard, Esq.	8	1	0	112	716	28·18	182

DIVISION II.—SOUTH EASTERN COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Diam.	Rain Gauge.		Depth of Rain.		Days with 1 in. or more	
			Height Above Ground Sea Level		1918			
SUSSEX—(con.)			in.	ft.	in.	feet	mm.	inches
5.—CUCKMERE & C—(con.)								
D Jevington (Church Farm)	A. J. Howard, Esq.	8	0	9		274	735	28·93 157
Litlington (Plough & Harrow Inn)	A. J. Howard, Esq.	8	1	0		19	900	35·44 .
D Willingdon Sewage Farm	T. E. Varley Kirtlan, Esq.	5	1	0		24	833	32·79 156
D Pevensey Pumping Station	T. E. Varley Kirtlan, Esq.	5	1	0		12	744	29·27 161
D Pevensey Bay Pumping Stat.	T. E. Varley Kirtlan, Esq.	5	1	0		7	691	27·20 162
St. Leonards (Gensing Gardens)	H. Colborne, Esq. <i>per</i> M.O.	8	1	0		179	681	26·81 201
D Hailsham Vicarage	Rev. F. Clyde Harvey	5	1	0		105	857	33·74 149
D Hailsham (Magham Down)	E. M. Bear, Esq.	5	1	0		90	763	30·03 161
D Hastings (Newgates) (R)	P. H. Palmer, Esq., C.E.	8	5	6		240	662	26·06 160
Hastings (Halton Reservoir)	P. H. Palmer, Esq., C.E.	8	0	10		301	709	27·93 158
Hastings (Fairlight Reservoir)	P. H. Palmer, Esq., C.E.	8	0	10		517	704	27·70 153
D Hastings (Cemetery)	Walter Field, Esq.	5	0	8		478	700	27·56 172
D Ninfield (Hazard's Green Pmp. St)	C. P. King, Esq.	8	0	10		74	694	27·34 193
Battle (Crowhurst Park)	Mr. A. Munday	5	1	0		480	715	28·14 .
Battle (Forewood W.W.)	P. H. Palmer, Esq., C.E. . . . .	..	..	..		100	652	25·68 187
D Westfield Vicarage	Rev. E. J. Morgan	5	5	6		101	716	28·20 181
D Horeham Road (Coxlow)	Miss P. C. Harrison	5	1	0		260	792	31·17 183
D Horeham Grange	W. F. Beauford, Esq.	5	1	2		260	846	33·30 184
D Horeham Rd. (Hollycroft Cott.)	J. Hamlin, Esq.	5	1	0		300	853	33·57 169
D Heathfield (The White Cottage)	J. F. Leigh Clare, Esq.	5	1	3		500	804	31·65 184
Heathfield (South Ridge)	P. Lennox Wright, Esq.	8	1	3		560	869	34·21 182
6.—ROTHER. 194 sq. mi.								
Icklesham Vicarage	Rev. Philip Houghton	5	0	6		110	621	24·44 .
D Winchelsea (Mariteau House)	C. W. Campion, Esq.	5	1	0		120	772	30·38 196
Udimore (The Hammonds)	J. G. Mair-Rumley, Esq.	8	1	0		144	649	25·56 160
D Beckley (Little Harmers)	B. E. de N. Ramus, Esq.	5	1	0		150	780	30·71 159
D Heathfield (Tottingworth Park)	Mr. J. Masson	5	1	0		500	851	33·52 172
D Northiam (Great Dixter)	Nathaniel Lloyd, Esq.	8	1	0		210	752	29·59 179
D Mayfield (Bishopstone)	A. G. Robins, Esq.	5	1	0		430	906	35·67 187
D Mayfield (Xaverian College)	Brother Aloysius	5	1	0		400	885	34·86 171
D Wadhurst (The Olives)	Miss Edith P. Luck	5	1	0		380	871	34·28 196
D Hurst Green (Boarzell)	Sir F. W. Fison, Bart.	8	1	0		270	719	28·29 177
7.—MEDWAY. 117 sq. mi.								
D Crowborough (Jarvis Brook)	Crowborough Water Co.	5	1	0		325	920	36·21 168
D Crowborough (Uckfield Lodge)	J. J. S. Driberg, Esq.	8	1	0		796	942	37·07 202
D Crowborough (Te Whare)	Miss Hames	5	1	0		796	930	36·60 217
D Wadhurst (Lower Cousley Wood)	F. Wilkin, Esq.	5	1	0		416	752	29·61 177
Forest Row (Wych Cross Place)	D. W. Freshfield, Esq.	5	0	10		600	905	35·62 .
D Forest Row (Hindleap Lodge)	Mr. A. Adam	5	1	6		620	921	36·26 178
Forest Row (Charlwood Farm)	A. Hoare, Esq.	5	1	0		250	851	33·49 .
D Coleman's Hatch (Holly Hill)	J. MacAndrew, Esq.	5	1	0		355	966	38·04 178
D Frant (Henley House)	Rev. E. Malden,	5	1	6		440	852	33·55 201
D Frant (Eridge Castle)	Mr. A. Wilson	5	2	0		400	937	36·89 178
Frant (Highfield)	C. M. R. Cleeve, Esq.	5	2	3		413	823	32·40 166
D Crawley Down (The Grange)	T. H. W. Buckley, Esq.	5	1	0		430	876	34·50 191
D East Grinstead (Highfields)	G. Mason, Esq.	5	1	0		400	789	31·06 175
D East Grinstead (Brockhurst Obsy)	F. J. Hanbury, Esq.	8	1	0		435	872	34·35 200
8.—THAMES—Mole. 27 sq. mi.								
D Worth (South Hill)	Miss R. M. Ravenshaw	8	1	6		558	904	35·59 212
D Worth (Worth Lodge)	C. W. Nix, Esq.	5	3	0		340	857	33·75 205

DIVISION II.—SOUTH EASTERN COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.		Depth of Rain. 1918	Days with '01 in. or more	
		Diam.	Height Above Ground Sea Level			
SUSSEX—(continued).		in.	ft. in.	feet	mm.	inches
9.—THAMES—Wey. 10 sq. mi.						
D Ripsley [Liphook]	W. D. Bosanquet, Esq.	5	1 0	400	856	33·72 179
HAMPSHIRE. Area, 1622 sq. mi.)						
1.—ISLE OF WIGHT. 150 sq. mi.						
Chale (Blackgang)	James Gibb, Esq.	..	..	..	620	24·41 ..
D Ventnor (Flint Cottage)	J. S. Ineson, Esq.	5	1 0	99	722	28·43 161
D Ventnor (Royal National Hos.)	Miss M. Gibson	5	1 0	60	715	28·16 197
Shanklin	E. C. Cooper, Esq., C.E.	8	1 0	184	829	32·64 ..
D Sandown (Free Library)	C. E. Gilchrist, Esq.	8	1 0	30	805	31·70 202
Brighstone Rectory	Rev. E. W. Silver	5	1 1	100	718	28·25 ..
Totland Vicarage	Mrs. Hall	5	0 11	150	646	25·45 161
D Totland Bay (Aston House)	J. Dover, Esq.	8	1 3	145	671	26·43 175
D Bembridge (The Grange)	Maj. F. A. Edwards	5	0 9	100	709	27·91 145
D Ryde (New Lodge, S. John's Pk.)	Mrs. Dobie	5	1 1	147	803	31·60 212
Ryde (Perivale)	Major E. C. Murray	5	1 3	193	783	30·81 166
Ryde (Pier Street)	G. Nicholson, Esq.	12	9 7	35	705	27·76 ..
D Ryde (Esplanade Gardens)	F. B. Goodman, Esq.	8	1 3	6	692	27·23 160
D Ryde (Beldornie Tower)	P. Craven Hall, Esq.	5	1 0	30	714	28·12 197
D Wootton (Fernhill)	T. A. Brodie, Esq.	8	0 6	118	767	30·20 159
D Binstead (Quarr Hill)	Dr. J. Winthrop Woodruff	5	0 10	100	708	27·87 178
D Osborne (R. Naval College)	B. S. Wolfe, Esq.	..	..	..	844	33·23 204
D East Cowes (Spring Hill)	G. Shedden, Esq.	5	1 0	121	707	27·85 174
D Cowes W. W. (Broadfields)	J. W. Webster, Esq., C.E.	5	0 10	161	728	28·65 164
D Cowes (Upper Moor Green)	J. G. K. Day, Esq.	5	4 0	160	717	28·22 171
2.—STOUR. 32 sq. mi.						
Bournemouth (Pleasure Gardens)	C. Dales, Esq.	5	1 0	41	800	31·49 183
D Bournemouth (West Cliff)	Rev. G. A. Rideout	5	1 0	145	766	30·17 176
D Bournemouth (Rodney House)	S. Hyla Greves, Esq.	5	1 0	145	730	28·75 169
M Bournemouth (Rodney House)	S. Hyla Greves, Esq.	5	1 0	145	756	29·78 ..
Bournemouth (Vale View)	C. Dales, Esq.	5	1 0	145	773	30·44 180
D Christchurch (Heron Court)	The Earl of Malmesbury	5	1 2	25	902	35·53 184
Ringwood (St. Leonards)	S. O. Ferry, Esq.	5	0 8	60	772	30·38 154
3.—EAST AVON & C. 114 sq. mi.						
Ringwood (West Mount)	R. F. Williams, Esq.	5	1 0	100	856	33·72 198
D Fordingbridge (Cuckoo Hill)	Heywood Sumner, Esq.	5	1 0	150	892	35·10 185
Fordingbridge (Dockens)	E. W. Poore, Esq.	8	0 6	140	868	34·17 180
D Fordingbridge (Oaklands)	S. B. Rake, Esq.	8	1 0	135	863	33·97 196
4.—TEST & SOLENT. 551 sq. mi.						
D Milford-on-Sea (Salt Grass)	A. C. G. Heygate, Esq.	5	1 0	6	704	27·72 161
Milford-on-Sea (Milford House)	E. L. Agar, Esq.	5	0 8	23	718	28·28 171
D Lymington (The Salterns)	P. A. Ouvry, Esq.	5	1 0	4	767	30·19 197
D Milton (Wootton Hill)	J. A. Harman, Esq.	5	2 6	198	882	34·72 177
D Calshot	The Air Ministry	8	1 0	12	571	22·48 163
Burley (Manor House)	Col. F. Willan	5	1 4	210	786	30·94 ..
Hythe (The Garth, Dibden)	P. C. Crossley, Esq.	8	1 0	136	857	33·74 ..
D Hythe (Heathfield, Dibden)	Mr. Jesse Reeves	5	1 3	127	897	35·32 196
Lyndhurst (Cuffnells)	R. G. Hargreaves, Esq.	5	1 0	195	977	38·47 ..
D Fritham (Fritham House)	H. H. S. Northcote, Esq.	5	1 0	399	961	37·85 163
Southampton (East Park)	Col. Sir C. F. Close, K.B.E.	8	1 0	65	819	32·22 189
Southampton (Shirley)	J. A. Crowther, Esq., C.E.	5	6 0	70	823	32·41 170

DIVISION II.—SOUTH EASTERN COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.				Depth of Rain.		Days with ≥ 0.1 in. or more
		Diam.	Height Above Ground Sea Level)			1918		
HAMPSHIRE—(con.)		in.	ft.	in.	feet	mm.	inches	
4.—TEST & SOLENT—(con.)								
M Southampton (Common Res.)	E. C. Rodda, Esq., C.E.	5	1	0	193	668	26.30	..
D Cadnam (Copythorne House)	N. M. Lawrence, Esq.	5	1	0	140	932	36.69	197
	Melchet Park	5	3	3	200	941	37.03	159
	Romsey (Stanbridge Earls) (R)	3	0		137	884	34.80	..
D Romsey (Timsbury)	(R) D. Kitchingman, Esq., C.E.	8	1	8	96	822	32.36	181
D West Dean Rectory	Rev. E. Wells	5	1	0	149	829	32.63	171
	West Tytherley (Buckholt)	5	0	11	410	841	33.11	187
	Horsebridge (Bossington House)	8	0	9	92	835	32.86	178
D Ashley Old Manor House	Legh S. Powell, Esq.	5	1	3	235	846	33.30	174
D Ashley (Upper Somborne)	Mr. Charles Alleway	5	1	0	250	861	33.91	193
D Ashley (Upper Somborne)	Mr. Charles Alleway	8	1	0	250	861	33.91	193
D Broughton	W. Steele Tomkins, Esq.	5	3	0	125	848	33.37	164
D Stockbridge (Houghton Lodge)	Mr. G. Morris	5	1	0	190	793	31.23	156
D Barton Stacey (Moody's Down)	H. J. Gardiner, Esq.	5	1	3	230	786	30.96	181
D Micheldever (Stoke Charity)	Rev. C. B. Lloyd	5	1	0	221	838	32.99	169
D Abbot's Ann Rectory	Rev. F. de Paravicini	5	0	10	220	826	32.50	186
D Andover Sewage Works	C. Jerome, Esq.	8	1	0	..	762	30.00	144
D St. Marybourne (Bournside)	Prof. C. V. Boys, F.R.S.	5	1	2	300	820	32.28	182
	Oakley (Manydown Park) (R)	1	8		415	822	32.37	..
	Hurstbourne Tarrant (Rookery)	5	1	0	331	894	35.21	..
D Litchfield (Dunley Manor)	Sir Alfred Herbert	..	..	..	..	876	34.50	185
	Vernham Dean (Rowe House)	5	0	7	650	867	34.15	..
5.—ITCHEN & SPITHEAD. 417 sq. mi.								
D Alverstoke (Monckton House)	Major J. Blake	5	1	6	15	692	27.23	165
	Portsmouth (Eastney)	8	0	9	16	627	24.68	..
D Portsmouth (Victoria Park)	Dr. A. Mearns Fraser	5	1	0	18	655	25.80	160
D Hayling Island (Richmond Ho.)	E. S. McEuen, Esq.	5	1	2	16	676	26.61	166
	Porchester (Noel Cottage)	5	2	0	..	574	22.58	..
D Fareham (Burpham House)	W. S. Stevenson, Esq., M.D.	5	1	6	3)	686	27.02	147
D Fareham (The Mount)	Sir H. R. Pink	5	1	0	250	669	26.33	165
D Fareham (Roche Court)	Mrs. H. F. Rawstorne	5	1	0	104	778	30.65	192
D Havant (Farlington)	H. Ashley, Esq., C.E.	5	1	0	77	628	24.72	168
M Havant (Farlington)	H. Ashley, Esq., C.E.	5	1	0	77	638	25.10	..
D Havant	H. Ashley, Esq., C.E.	5	1	0	25	668	26.30	176
M Havant	H. Ashley, Esq., C.E.	5	1	0	25	670	26.39	..
	Cosham (Purbrook Grange)	8	0	9	100	875	34.46	162
D Netley (Lake House)	Miss Pennington	8	1	0	54	802	31.56	199
D Cowplain (Forest View)	H. C. Pearson, Esq.	5	5	0	222	826	32.50	192
	Wickham (The Lower House)	5	1	0	100	807	31.77	..
	Wickham (Park Place)	5	1	0	150	763	30.04	168
	Southampton (Chapel)	5	6	0	10	781	30.76	170
	Southampton (Portwood)	5	2	0	10	810	31.91	170
D Botley (Fairthorne Manor)	Mr. D. F. Lailey	8	1	0	70	868	34.17	206
D Botley (Hedge End)	Mrs. T. H. Philpott	8	1	1	210	832	32.77	178
	Botley (Brook House)	5	3	2	45	842	33.13	..
D Botley (Botley Hill)	Lady Jenkyns	5	1	6	36	832	32.76	171
D Curdrige (Beechcroft)	Miss L. M. S. Pasley	5	1	0	96	819	32.24	188
D Curdrige (Kitnocks House)	Maj. C. F. Randolph	5	0	6	185	810	31.89	165
D Catherington (St. Catherines)	Capt. R. H. Archer, R.N.	5	1	3	370	872	34.35	196
D Catherington House	Mrs. Long	5	1	0	358	942	37.08	177

DIVISION II.—SOUTH EASTERN COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.		Depth of Rain. 1918	Days with ≥ 1 in. or more
		Diam.	Height Above Ground Sea Level		
HAMPSHIRE—(con.)		in.	ft. in.	feet	mm. inches
5.—ITCHEN & SPITHEAD—(con.)					
D Soberton (Mislingford).....	E. T. Hildred, Esq., C.E.	5	1 0	136	790 31.12 177
M Soberton (Mislingford).....	E. T. Hildred, Esq., C.E.	5	1 0	136	785 30.92 ..
Chalton (Woodcroft).....	C. J. P. Cave, Esq.	5	1 0	230	894 35.20 ..
D BishopsWaltham(ThePalaceHo)	A. F. Hardy, Esq.	5	1 3	116	814 32.03 182
BishopsWaltham(SwanmoreHo)	W. H. Myers, Esq.	8	1 0	390	952 37.49 160
D Droxford (Uplands).....	Miss Bridge	5	1 0	279	899 35.38 208
D Droxford (Fairfield House)....	H. Hamilton Bridge, Esq.	5	1 0	254	885 34.85 211
D Droxford (Fir Hill).....	Cpt Mackenzie-Grieve, RN	5	3 6	212	842 33.16 169
D Petersfield (Ditcham Park)...	C. J. P. Cave, Esq.	8	1 0	555	940 36.99 188
M Petersfield (Downley).....	C. J. P. Cave, Esq.	5	1 2	374	983 38.70 ..
Fair Oak (Fisher's Pond).....	G. M. Mathews, Esq.	5	1 0	..	795 31.29 ..
D Otterbourne House.....	E. Christian, Esq.	5	1 2	111	864 34.01 181
D Otterbourne (W.W., Shawford).	E. C. Rodda, Esq., C.E.	5	1 0	113	844 33.24 182
Westbury House Gardens.....	Cl. H. Le Roy Lewis, CB, DSO	5	2 10	296	925 36.40 ..
Winchester (Owslebury House)	W. Welsh, Esq.	5	1 0	365	836 32.92 167
D Twyford (Pumping Station) (R)	D. Kitchingman, Esq. C.E.	8	1 9	139	807 31.76 167
D Twyford (Mallards Close).....	G. R. Marsh, Esq.	5	1 0	153	797 31.38 169
D Hursley Park.....	(R) Sir G. A. Cooper, Bart.	10	1 0	220	708 27.87 173
Kilmeston Manor.....	Mrs. Heathcote.....	5	4 6	323	766 30.14 ..
Petersfield (Broadhanger).....	Mrs. R. M. Caulfeild	5	1 0	730	1001 39.40 171
D Winchester (St. Giles' Hill)...	Mrs. Wilde	5	1 0	250	838 32.98 173
M Winchester (St. Giles' Hill)...	Mrs. Wilde	5	1 0	215	807 31.78 ..
D Ropley (The Vicarage).....	Rev. H. W. C. Geldart	5	0 6	350	748 29.43 177
D Ovington Rectory.....	Rev. H. F. LaM. Stowell	5	1 0	221	884 34.80 171
Ovington (Barley Down).....	J. Stevens, Esq.	12	3 6	300	889 34.99 178
Itchenstoke Rectory.....	Rev. V. E. Skrine	5	1 0	200	792 31.20 167
D Itchen Abbas (Chilland).....	W. J. Arnold, Esq.	5	1 3	200	775 30.50 170
6. — ARUN. 32 sq. mi.					
M Petersfield (Sunwood).....	C. J. P. Cave, Esq.	5	0 10	479	967 38.08 ..
M Petersfield (The Miscombe)...	C. J. P. Cave, Esq.	5	1 1	262	956 37.62 ..
Petersfield (Buriton House)....	L. G. Bonham Carter, Esq.	5	1 9	293	866 34.09 ..
M Petersfield (Nursted).....	C. J. P. Cave, Esq.	5	1 0	270	891 35.09 ..
D Petersfield (Weston).....	Capt. P. W. Seward	5	1 0	330	943 37.12 178
Petersfield(TheMount,Ramshill)	F. G. Padwick, Esq.	8	1 0	250	934 36.76 192
D Liss (Overcombe).....	Miss Jebb	5	1 0	500	732 28.82 196
D Liss (Highfield).....	J. S. Gamble, Esq. C.I.E., FRs	5	0 9	325	907 35.70 213
D Liss (The Lodge).....	Ernest Latter, Esq.	5	1 3	240	886 34.89 200
D Liss (Kippences).....	Rev. W. A. H. Thorold.	5	0 9	250	859 33.83 152
Greatham (Manor House).....	F. Coryton, Esq.	5	0 7	250	847 33.33 ..
D Greatham (Le Court).....	Sir Heath Harrison, Bart.	5	0 6	420	884 34.82 184
7. — THAMES—Wey. 97 sq. mi.					
D Liphook (Fowley).....	E. A. Lee, Esq.	5	0 10	296	882 34.73 192
D Colmer Rectory.....	Rev. A. C. Hervey	5	1 1	560	868 34.16 160
East Tisted (Rotherfield Park).	Mr. W. H. Yates	5	1 0	550	1014 39.91 207
D East Tisted Rectory.....	Rev. Roland Errington.	5	1 0	437	834 32.83 154
D Newton Valence Vicarage.....	Rev. A. C. Maclachlan	5	1 0	586	848 33.37 205
D Selborne (The Wakes).....	Col. A. Bibby	5	1 0	400	942 37.08 198
D Grayshott.....	Mrs. Lyndon.....	5	1 0	661	890 35.05 206
D Headley (Eveley).....	Mr. T. Carter	5	1 3	295	860 33.86 179
Liphook (Bordon Camp).....	The Division Officer, R.E.	8	1 0	268	786 30.96 ..

DIVISION II.—SOUTH EASTERN COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain. 1918	Days with ≥ 0.1 in. or more		
		Diam.	Height Above Ground Sea Level					
HAMPSHIRE—(con.)		in.	ft.	in.	feet	mm.	inches	
7.—THAMES—Wey—(con.)								
Alton (Manor House Gardens)	<i>Hampshire Observer</i>	8	3	0	594	898	35.37	193
Alton (Shalden Manor)	J. Gathorne Wood, Esq.	8	3	0	594	957	37.67	203
Alice Holt Forest	A. Simpson, Esq., <i>per</i> M.O.	8	3	0	594	775	30.48	194
8.—THAMES—Loddon. 164 sq. mi.								
D Warren Corner [Farnham]	F. Wilkin, Esq.	5	1	0	560	826	32.52	186
D Upton Grey (Hoddington Ho.)	the late Lord Basing	8	1	0	378	906	35.68	179
D Aldershot (Sewage Works)	Mr. J. Edwards	5	1	0	231	872	34.32	216
Greywell	F. J. Garland, Esq.	5	2	6	266	639	25.15	..
D Basingstoke (Pumping Station)	W.A. Drummond, Esq. <i>CE.</i>	5	0	6	320	803	31.62	164
D Sherborne St. John Rectory	Rev. D. W. Chute	5	1	2	267	787	30.98	182
D Sherborne St. John (West End)	Rev. H.C. Sloane Stanley	5	0	11	250	813	32.00	215
South Farnborough	Meteorological Office	8	1	0	234	767	30.20	192
D Winchfield (Elvetham Park)	Mr. G. B. Mitchison	8	1	0	217	791	31.13	189
D Hartley Grange	F. Walkinshaw, Esq.	8	1	0	219	708	27.89	184
D Strathfieldsaye Rectory	Rev. F. Page-Roberts	5	1	0	164	782	30.79	184
D Heckfield (Park Corner)	Miss Martineau	5	1	2	257	792	31.19	191
9.—THAMES—Kennet. 65 sq. mi.								
Wolverton (Ewhurst Park)	Mr. F. E. Brinicombe	5	2	0	430	792	31.20	..
D Kingsclere (The Rookery)	Dr. R. Maples	5	3	0	327	876	34.47	158
BERKSHIRE, (Area, 722 sq. mi.)								
1.—TEST. 2 sq. mi.								
2.—THAMES—Bourne. 15 sq. mi.								
3.—THAMES—Loddon & c. 162 sq. mi.								
D Wellington College	W. G. Collett, Esq.	5	1	0	283	840	33.07	185
D Ascot (Winkfield Manor)	C. A. Ferard, Esq.	5	1	0	240	785	30.91	188
D Wokingham (Fieldhouse)	H. C. Mylne, Esq.	5	1	0	220	755	29.74	208
Wokingham (Pinewood)	Medical Supt., <i>per</i> M.O.	8	1	0	215	746	29.37	168
D Winkfield (Ryemead)	Mrs. Aubrey Elliott	5	0	10	220	792	31.16	200
D Windsor (Royal Gardens)	Mr. A. MacKellar	5	1	0	88	740	29.13	206
D Windsor (Osborne Road)	Miss M. G. Cookson	8	1	0	88	756	29.75	191
D Maidenhead (Heywood Park)	Greville H. Palmer, Esq.	8	1	0	102	730	28.76	163
D Maidenhead (Hall Place)	Sir G. A. C. East, Bart.	8	2	2	275	691	27.19	180
Remenham (Thamesfield)	Sir J. E. Edwards-Moss Bt.	5	0	6	110	743	29.24	186
D Hambleden Lock	Mr. S. J. Bourner	5	2	0	120	730	28.75	193
D Bisham Vicarage	Rev. W. Farrer	5	1	0	100	667	26.25	162
D Temple House [Marlow]	Mrs. Owen Williams	5	1	0	106	776	30.54	208
4.—THAMES—Kennet & c. 224 sq. mi.								
Hampstead Marshall (Redhill)	Mrs. Lewis	5	1	0	400	802	31.59	..
Mortimer (Wokefield Park)	A. Palmer, Esq.	5	4	0	220	732	28.80	169
D Brimpton (Stonehouse)	F. Hadden, Esq.	5	0	7	350	764	30.09	176
D Brimpton (Littlepark)	Lt.-Col. W. Y. Langford	5	1	0	345	741	29.16	153
D Newbury (Greenham Common)	H. L. Bowman, Esq. <i>D.Sc.</i>	5	1	0	328	828	32.62	182
Newbury (Grammar School)	H. Liggins, Esq.	5	0	9	279	736	28.97	177
D Newbury (Andover Road)	J. H. Spackman, Esq.	5	1	6	..	802	31.56	190
D Upton Nervet Rectory	Rev. A. E. Brisco Owen	8	1	0	308	730	28.72	201
D Shinfield (University Col. Farm)	Prof. W. G. Duffield	5	1	0	200	714	28.09	167
D Bucklebury Place	Dr. Carl Langer	5	1	0	409	728	28.65	152
D Beenham House	Capt. W. Waring	8	2	3	315	742	29.20	191
Reading (Leighton Pk. School)	C. I. Evans, Esq. <i>per</i> M.O.	5	1	0	265	601	23.66	171

DIVISION II.—SOUTH EASTERN COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.				Depth of Rain.		Days with .01 in. or more
		Diam.	Height Above Ground Sea Level			1918		
BERKSHIRE—(con.)		in.	ft.	in.	feet	mm.	inches	
4.—THAMES—Kennet & c.—(con.)								
D Reading (Northcourt Avenue)	R. Osmond, Esq.	5	1	0	213	710	27.96	195
D Reading W.W. (Bath Road)	L. C. Walker, Esq., C.E. .	5	1	8	218	700	27.54	180
D Reading (Forbury Gardens)	J. Bowen, Esq., C.E. . .	5	1	5	145	733	28.85	199
Reading (University College)	Prof. W. G. Duffield . . .	5	1	0	152	732	28.80	182
Reading (Victoria Square)	W. Haynes, Esq.	5	1	6	145	743	29.25	190
Reading (Caversham Lock)	R. A. Swarbrick, Esq. . .	5	3	5	124	614	24.18?	..
Lambourn (Clarionville)	F. Gullett, Esq.	5	1	6	500	784	30.87	174
5.—THAMES—Ock & c. 319 sq. mi.								
D Reading (Englefield)	J. H. Benyon, Esq.	5	1	1	175	745	29.33	175
D Frilsham House	Mr. W. E. Austen	5	1	0	370	731	28.78	177
Yattendon Court	Mr. F. Pitman	5	0	10	440	718	28.26	..
Hampstead Norris	John Brown, Esq.	5	1	0	300	744	29.28	187
Farnborough Rectory	Rev. J. B. H. Whitehurst .	5	1	0	713	803	31.61	206
Wallingford (Aston Tirrold)	J. Harold Slade, Esq. . .	5	1	1	250	600	23.61	..
D Upton	Miss Fry	5	1	0	240	663	26.12	199
Upton (Prospect House)	C. S. Grant, Esq.	5	1	0	250	700	27.57	..
D Wantage (Ginge Manor)	Miss Elliot	5	1	0	332	756	29.77	194
Wantage	W. Hanson, Esq. per M.O. .	5	1	0	314	673	26.48	147
Steventon (Milton Hill)	R. H. Betteridge, Esq. . .	5	1	6	300	712	28.02	163
D Wallingford (Woodlea)	G. F. Slade, Esq.	5	0	6	200	606	23.86	161
Wallingford Castle	Miss Hedges	5	1	0	175	608	23.94	163
D Wallingford (Shillingford Hill)	Lt.-Col. G. Hart Dyke .	5	1	4	218	660	25.99	186
D Little Wittenham	J. Latham, Esq.	5	2	0	189	579	22.78	156
D Abbots Wittenham Rectory	Rev. W. F. B. Ward . .	5	1	0	190	615	24.21	190
D Long Wittenham (Manor Ho.)	Adm. W. R. Clutterbuck	12	1	0	170	692	27.23	154
D Long Wittenham (Willington)	H. J. Hewett, Esq.	5	1	0	167	687	27.04	172
D Faringdon (Bleak House)	Miss Turner	5	1	0	367	591	23.26	184
D Abingdon (The Square House)	E. Estridge, Esq.	5	1	9	180	653	25.70	170
D Abingdon (Twickenham House)	G. Saxby, Esq.	5	10	0	210	598	23.54	146
Abingdon (Caldecott House)	Mrs. Bailie.	5	0	7	177	629	24.75	..
Abingdon (Sewage Works)	Raphael V. Hall, Esq. C.E	5	0	6	169	712	28.04	..
D Abingdon (Union)	Mr. J. Fray	5	1	0	196	688	27.08	193
Abingdon (Fitzharris)	Mrs. Blakeney	8	0	10	185	601	23.65	..
Abingdon (Donnington)	R. W. Langford, Esq. . .	5	7	0	196	659	25.96	160
Abingdon (Northcourt House)	M. T. Tatham, Esq.	5	1	0	190	642	25.27	..

DIVISION III.—SOUTH MIDLAND COUNTIES.

MIDDLESEX. (Area, 232 sq. mi.)

1.—THAMES—Colne & Brent. 185 sq. mi.								
D Shepperton Lock [Weybridge]	R. A. Swarbrick, Esq. . .	5	1	0	41	707	27.85	159
D Sunbury (Sunbury Lodge)	F. A. Wallroth, Esq. . . .	5	3	9	38	678	26.70	180
D Shepperton (Charlton Court)	Met. Water Board	8	1	0	42	695	27.36	184
D Hampton	Met. Water Board	8	1	0	50	654	25.75	181
Hampton (The Manor House)	J. Hughes, Esq., per M.O. .	..	..	..	43	648	25.44	144
D Staines (Belle Vue)	J. Gundry, Esq.	5	1	0	51	750	29.52	184
D Staines Reservoir	Met. Water Board	5	1	0	50	718	28.25	186
D Twickenham (Sewage Works)	F. W. Pearce, Esq., C.E. .	5	1	7	37	714	28.13	162
D Hounslow (S. Stephen's Vicarage)	Rev. R. Dixon Box	5	1	0	67	707	27.85	186

DIVISION III.—SOUTH MIDLAND COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.				Depth of Rain.		Days with ·01 in. or more
		Diam.	Height Above Ground SeaLevel			1918		
MIDDLESEX—(con).		in.	ft.	in.	feet	mm.	inches	
1.—THAMES—Colne & Brent—(con.)								
Sipson (Hollycroft)	.....Mr. W. J. Mitchell	5	1	0	95	624	24·58	..
D Kew Bridge (Waterworks)	.....Met. Water Board	8	1	0	37	733	28·86	183
D Chiswick (Grove Park)	.....A. E. Brounger, Esq.	5	1	1	18	696	27·39	172
Chiswick (Sewage Works)	.....E. Willis, Esq.	8	1	6	24	643	25·31?	..
D Ealing (Webster Gardens)	.....H. M. Baker, Esq.	5	1	6	97	763	30·03	183
Ealing (Longfield Avenue)	.....W. R. Hicks, Esq., C.E.	5	0	9	114	726	28·58	171
D Ealing (St. Stephen's Road)	.....H. W. Peal, Esq.	5	0	10	156	740	29·14	185
D Ealing (Hanger Hill Reservoir)	.....Met. Water Board	5	1	0	..	806	31·74	174
D Perivale (Northern Sewage Farm)	.....W. R. Hicks, Esq., C.E.	5	0	5	56	760	29·92	203
D Uxbridge (Frays Lodge)	.....J. C. Hibbert, Esq.	8	1	3	125	797	31·38	205
D Willesden Reservoir	.....Met. Water Board	5	2	6	199	729	28·71	189
D Willesden Green (Strode Road)	.....Miss Lamport	5	1	0	150	753	29·64	174
D Willesden (Richmond Avenue)	.....W. Godden, Esq.	5	6	0	176	722	28·42	167
D Willesden (Stonebridge Fm.) (R)	.....B. Haylor, Esq., C.E.	10	5	9	100	691	27·22	174
D Highgate (North Hill)	.....L. J. Tatham, Esq.	5	1	0	400	762	29·98	180
D Highgate (North Hill Dépôt)	.....E. J. Lovegrove Esq., C.E.	5	5	4	309	740	29·12	178
D Harrow (Bessborough Rd. Dépôt)	.....J. P. Bennetts, Esq., C.E.	5	1	0	215	681	26·80	183
Golders Green (Highfield Av.)	.....A. E. Payne, Esq.	5	1	0	175	698	27·46	..
D Hendon Sewage Works	.....(R) S. S. Grimley, Esq.	6	1	8	153	630	24·79	159
D Hendon (Central School)	.....C. W. Butler, Esq.	5	1	4	200	778	30·64?	190
Wealdstone House	.....Miss H. O. E. Cobb	5	0	11	236	590	23·23	..
Harefield (Harefield House)	.....Walter J. B. Byles, Esq.	5	0	8	290	785	30·89	..
D Northwood (Haslemere)	.....Miss McBean	5	1	0	240	704	27·73	162
D Harrow Weald (Hill House)	.....A. Crossman, Esq.	5	3	6	284	671	26·43	190
D North Finchley (Rowsley)	.....Miss M. Shoults	5	0	8	295	751	29·58	187
Mill Hill (Mylesdown)	.....Master Willoughby Salter	5	1	0	330	706	27·79	..
D Mill Hill (Cleveland)	.....Mrs. Stewart King	5	1	0	400	756	29·77	205
Dyrham Park [Barnet]	.....Mr. H. Juniper	5	1	0	310	703	27·67	..
D Potters Bar (Mount Grace)	.....J. Forbes, Esq.	5	1	0	380	750	29·51	189
D Potters Bar (Little Heath)	.....Henry Ellis, Esq.	5	1	0	375	752	29·61	189
2.—THAMES—Lea. 47 sq. mi.								
D Stroud Green (Oakfield Road)	.....E. A. Madge, Esq.	5	..	..	..	727	28·62	185
D Crouch End (Barrington Road)	.....E. J. Lovegrove, Esq., C.E.	8	3	10	122	789	31·08	196
D Harringay (Wightman Rd. Dépôt)	.....E. J. Lovegrove, Esq., C.E.	8	23	3	113	632	24·89	173
Harringay (Wightman Road)	.....L. R. Bennett, Esq.	5	1	0	140	713	28·07	178
D Highgate (Avenue Road)	.....Miss M. Nicholson	5	1	0	212	802	31·56	179
Tottenham (Drayton Road)	.....Urb. Dist. Council per M.O.	5	1	3	51	743	29·25	173
D Hornsey (High Street)	.....Met. Water Board	5	1	0	109	789	31·08	204
Muswell Hill (Grand Avenue)	.....G. Michael Williams, Esq.	5	1	0	317	775	30·50	..
D Muswell Hill (Grand Avenue)	.....Miss Abethell	5	0	8	310	854	33·64	208
D Muswell Hill (Sewage Farm)	.....E. J. Lovegrove, Esq., C.E.	8	4	5	214	751	29·58	199
D Alexandra Pk. (Grove Avenue)	.....Ernest A. Lee, Esq.	5	1	0	235	754	29·70	196
D Wood Green (Maryland Road)	.....Mr. F. C. Hornsey	6	1	6	110	745	29·32	197
D Wood Green (Town Hall)	.....(R) C. H. Croxford, Esq.	8	5	6	126	622	24·47	171
D Finchley (Victoria Park)	.....H. Catchpole, Esq., C.E.	5	1	0	272	787	30·99	183
D Finchley (Etchingham Park)	.....Mrs. J. W. Scott	5	1	2	295	792	31·16	209
D Palmers Green (Broomfield Pk.)	.....D. S. Sutherland, Esq., C.E.	8	1	1	138	615	24·20	190
D Ponders End (Bylock Hall)	.....H. E. Freir, Esq.	5	1	0	50	709	27·93	204
D Ponders End Pumping Station	.....Met. Water Board	8	1	0	45	710	27·94	176
D Enfield (Southbury Road)	.....Met. Water Board	5	1	0	223	719	28·29	199

DIVISION III.—SOUTH MIDLAND COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.		Depth of Rain. 1918	Days with ·01 in. or more
		Diam.	Height Above Ground Sea Level		
MIDDLESEX—(con.)		in.	ft. in.	feet	mm. inches
2.—THAMES—Lea—(con.)					
D Enfield (Public Offices)	Dr. W. P. Warren	8	43 0	148	693 27·28 192
D Enfield (Carisbrooke Culloden Rd.)	J. McEwan, Esq.	5	1 0	204	750 29·51 189
D Enfield (Clay Hill)	G. H. C. Lea, Esq.	5	1 0	200	737 29·00 218
D Enfield (Roselands, Turkey St.)	E. S. Rashleigh, Esq.	5	0 7	80	718 28·27 186
Sewage Works [Waltham]	J. E. Sharpe, Esq.	5	1 0	61	638 25·10 ..
D Potter's Bar (North Lodge)	Lady Gundry	5	1 0	332	663 26·10 ...
HERTFORDSHIRE. (Area, 635 sq. mi.)					
1.—THAMES—Thame. 10 sq. mi.					
D Tring (Grove Lodge)	Miss Boyson	8	1 0	450	790 31·10 192
Tring (Pendley Manor)	Mrs. Williams	5	2 0	420	761 29·95 189
2.—THAMES—Colne. 199 sq. mi.					
D Gate House [Northwood]	O. S. Holt, Esq.	8	4 6	448	764 30·10 200
D Rickmansworth (Croxley Green)	S. Ingleby Oddie, Esq.	5	0 7	250	712 28·01 164
D Totteridge (West Lodge)	W. H. Newman, Esq.	5	1 0	390	736 28·96 185
D Watford (Oxhey Grange)	J. Doyle Penrose, Esq.	5	1 0	295	653 25·70 149
D Watford (Bushey Hall Road)	J. Durst, Esq.	5	1 0	230	742 29·21 198
D Bushey (Colne Valley W.W.)	C. P. Sinclair, Esq.	5	1 0	200	672 26·47 175
D Watford (London Orphan Sch.)	Rev. E. Hartley-Parker	5	1 0	230	803 31·62 179
D Watford (Park Road)	E. J. Slinn, Esq.	5	1 6	263	716 28·20 186
D Watford (Weetwood)	late J. Hopkinson, Esq.	5	1 0	269	743 29·25 201
M Watford (Weetwood)	late J. Hopkinson, Esq.	5	1 0	269	749 29·48 ..
D Shenley (Kitwells)	T. H. Riches, Esq.	5	1 0	420	727 28·63 169
M Shenley (Kitwells)	T. H. Riches, Esq.	5	1 0	420	678 26·68 ..
Sarratt (Goldingtons)	(R) P. Clutterbuck, Esq.	8	3 6	380	740 29·15 ..
Chipperfield (Little Callipers)	A. W. Rivington, Esq.	5	1 0	407	746 29·35 ..
D King's Langley (Langley Rise)	T. Goldring, Esq.	5	1 0	360	789 31·07 168
King's Langley (Barnes Lodge)	J. C. Shorrocks, Esq.	5	1 0	475	801 31·52 180
D London Colney (Bowmans)	C. Barwell Field, Esq.	5	1 0	235	733 28·87 199
D Hemel Hempstead (Apsley Mills)	Messrs. J. Dickinson & Co.	24	1 4	268	749 29·48 186
D St. Albans (Hill End Asylum)	G. Goodchild, Esq.	5	1 0	295	694 27·33 158
D St. Albans (Holmhurst)	Mrs. Jay Jones	5	0 8	310	770 30·30 175
D St. Albans (County Museum)	late J. Hopkinson, Esq.	5	1 0	389	744 29·30 184
D St. Albans (Jennings Road)	M. L. Nicholas, Esq.	5	1 6	380	730 28·76 185
Gorehambury	Mr. J. Ison	5	1 0	423	737 29·02 177
D Berkhamsted (Anglefield)	E. T. Browne, Esq.	5	1 0	450	803 31·62 191
Tring (Cowroast Lock)	W. Yates, Esq.	5	3 8	394	800 31·48 ..
D Childwickbury Gardens	Mr. T. Nutting	8	1 0	400	812 31·99 165
D Gt. Gaddesden (Golden Pars'nage)	Elliott Kitchener, Esq.	8	1 0	536	784 30·88 188
Harpenden (Rothamsted)	Lawes Agricultural Trust	5	0 9	424	703 27·68 180
D Harpenden (Rothamsted)	Lawes Agricultural Trust	8	0 9	424	702 27·63 209
Harpenden (Rothamsted)	Lawes Agricultural Trust	72x87	0 9	424	794 31·24 188
3.—THAMES—Lea. 340 sq. mi.					
D New Barnet (Gas Works)	F. J. Bancroft, Esq., C.E.	8	1 0	217	695 27·36 167
D New Barnet (Green Hill Park)	Mr. W. Lockyer	5	1 10	289	770 30·31 174
D Barnet (Summerhill)	F. A. Milne, Esq.	5	0 10	400	710 27·95 197
D Barnet (Bedford Avenue)	Miss Haines	5	1 3	350	792 31·18 203
Hadley (Hadley Bourne)	Mrs. Weber	5	1 0	428	764 30·10 194
D Cheshunt (Manor House)	J. E. Sharpe, Esq.	5	1 0	83	723 28·47 188
D Cheshunt (Goff's Oak House)	W. M. Cuninghame, Esq.	5	1 0	310	717 29·41 191

DIVISION III.—SOUTH MIDLAND COUNTIES—(*continued*).

STATIONS.	AUTHORITIES.	Rain Gauge.				Depth of Rain. 1918	Days with ≥ 0.1 in. or more
		Diam.	Height Above Ground Sea Level				
HERTFORDSHIRE—(con.)		in.	ft.	in.	feet	mm.	inches
3.—THAMES—Lea—(con.)							
D Cheshunt Yard	Met. Water Board.....	5	1	0	100	712	28.01 185
D Cheshunt (Darnicle Hill P. Stn.)	J. E. Sharpe, Esq.	5	1	0	250	735	28.92 180
D Northaw (St. Just).....	Miss Poland	5	1	0	400	821	32.32 223
D Broxbourne (Stafford House) ..	A. F. Newbery, Esq. ..	5	1	0	118	702	27.65 180
D Hoddesden (Feilde's Weir)	Met. Water Board.....	8	3	8	95	676	26.61 182
Haileybury (Hailey House) ...	P. H. Latham, Esq.	5	1	0	260	693	27.27 185
D Haileybury College	P. H. Latham, Esq.	8	1	0	270	698	27.47 189
D Gilston Park	Mr. E. Leach	8	1	0	175	732	28.80 169
D Hatfield (Surveyor's Office)....	J. S. Killick, Esq., C.E. 5	1	0	270	645	25.41 163	
D Hertford (Bayfordbury)	H. W. Clinton Baker, Esq. 8	1	2	250	662	26.07 179	
D Stanstead Abbots	E. H. Barlow, Esq.	5	1	2	115	688	27.10 169
D Hertford (Sewage Works)	Met. Water Board.....	5	1	0	117	648	25.51 167
D Ware (Red House)	Met. Water Board.....	5	1	0	115	658	25.90 180
D Ware (Chadwell Spring)	Met. Water Board.....	5	1	0	140	663	26.09 171
Widford (Wanns Cottage) ...	Ralph Abbott, Esq.	8	0	9	..	607	23.90 ..
D Welwyn (Codicote Lodge).....	Mr. F. A. Akers	5	1	0	340	735	28.94 186
D Much Hadham	T. Woodham Mott, Esq. 5	1	0	212	667	26.26 177	
D Bishop Stortford (Thorley) ...	Laurie Frere, Esq.	5	0	8	182	670	26.38 186
Bishop Stortford (Hadham Rd.)	H. Sheppard, Esq.	5	7	0	300	722	28.41 ..
D Standon	F. H. Wace, Esq.	5	1	0	375	636	25.03 170
D Bennington House	Miss E. A. Parker	5	1	0	406	676	26.60 201
D Little Hadham (Hadham Hall) .	W. Minet, Esq.	5	0	10	358	679	26.73 167
D Buntingford (Westmill, Coles Pk)	T. Greg, Esq.	5	1	0	379	677	26.67 161
D Hitchin (Preston)	R. de V. Pryor, Esq. ..	8	2	5	480	667	26.25 187
D Weston Park	M. R. Pryor, Esq.	5	0	8	470	684	26.94 184
D Furneaux Pelham (The Brewery)	G. W. Bindloss, Esq. ...	5	1	0	300	652	25.68 180
D Royston (Therfield Rectory) ..	Rev. H. R. Humphreys ..	5	1	0	513	667	26.26 169
4.—OUSE. 86 sq. mi.							
D Offley (School House)	C. W. Mears, Esq.	5	1	0	526	703	27.66 162
D Offley Vicarage	Rev. E. P. Gatty	5	1	6	525	686	27.01 176
D Graveley Rectory.....	Rev. R. E. C. Walker ..	5	0	10	325	791	31.15 180
D Hitchin (The Chilterns)	F. Ransom, Esq.	5	1	0	300	656	25.81 182
D Hitchin (Chiltern Road).....	A. Latchmore, Esq. ...	5	1	0	297	620	24.43 176
D Hitchin (High Down)	Miss E. Pollard	5	1	1	422	711	28.00 206
D Hitchin (Roxley House, William)	Mrs. H. Bendixson	5	1	6	370	592	23.31 156
D Letchworth (Sewage Farm)....	A. W. E. Bullmore Esq. CE. 5	1	0	214	632	24.87 165	
D Letchworth (Gernon Road)	A. W. Brunt, Esq.	5	1	0	280	612	24.08 172
Letchworth (Broadway)	W. C. Steen, Esq., M.D. 5	1	0	310	610	24.01 ..	
D Royston (Barley)	W. W. Cook, Esq.	5	1	0	300	621	24.45 177
D Royston (Earlshill House)	J. Phillips, Esq.	8	1	6	225	612	24.11 189
BUCKINGHAMSHIRE. Area, 743 sq. mi.							
1.—THAMES—Cherwell. 30 sq. mi.							
2.—THAMES—Thame. 158 sq. mi.							
D Weston Turville (Yaxley Lodge)	Miss Morris	5	1	1	335	674	26.53 164
Weston Turville	G. Eland, Esq., <i>per</i> M.O. 5	1	0	314	623	24.51 151	
D Bulbourne [Tring]	W. Yates, Esq.	5	2	3	401	785	30.91 174
Mentmore Gardens.....	Mr. J. MacGregor	5	1	2	400	732	28.84 ..
3.—THAMES—Wye & c. 129 sq. mi.							
D Eton (Tangier Island)	E. A. Stickland, Esq. ..	5	1	0	67	773	30.43 173

DIVISION III.—SOUTH MIDLAND COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.		Depth of Rain. 1918	Days with ·01 in. or more
		Diam.	Height Above Ground Sea Level		
BUCKINGHAMSHIRE—(con.)					
3.—THAMES—Wye & c.—(con.)					
M Slough (Upton)	R. Bentley, Esq.	8	2 0 80	718	28·25 ..
D Slough (Upton)	R. Bentley, Esq.	5	2 0 78	761	29·95 219
D Slough (Amersham Lodge)	A. Sainty, Esq., C.E. ...	5	1 0 91	738	29·07 184
D Taplow (Hitcham Grange)	Hon. C. S. Irby	5	0 9 200	709	27·90 147
D Stoke Poges (Stoke Court)	H. Allhusen, Esq.	8	1 4 196	749	29·50 148
D Greenlands [Henley-on-Thames]	Lord Hambleden	5	1 3 116	768	30·23 178
D Hedsor	Lord Boston	8	1 0 170	810	31·91 173
D Bourne End (The Bourne)	A. Morse, Esq.	5	1 0 240	778	30·62 154
D Marlow (Thames Bank)	S. H. Wright, Esq.	8	2 0 105	1020	40·14? 211
D High Wycombe	H. S. Wheeler, Esq.	5	0 11 253	822	32·37 210
D High Wycombe (Roy. Gram. Sch)	R. Matthews, Esq.	8	1 0 545	767	30·20 194
D Penn (Rayners)	Sir P. F. Rose, Bart. ...	5	1 3 547	840	33·06 186
D Hampden House	Earl of Buckinghamshire	5	1 0 695	735	28·95 188
4.—THAMES—Colne. 133 sq. mi.					
D Slough (Langley)	R. H. Major, Esq.	8	0 10 85	699	27·51 173
D Chalfont St Peter (Chalfont Park)	Mr. G. Barrell	5	1 0 201	814	32·04 184
D Chalfont St. Giles (The Stone)	Col. R. W. Phipps	5	1 0 270	813	32·01 194
M Chalfont St. Giles (The Stone)	Col. R. W. Phipps	5	1 0 270	809	31·84 ..
D Amersham (St. Mary's Sch.) No. 1	W. Garton, Esq.	5	1 9 340	844	33·23 174
D Amersham (St. Mary's Sch.) No. 2	W. Garton, Esq.	5	1 0 340	862	33·93 176
D Amersham (The Plantation) ...	G. Weller, Esq.	8	1 0 464	794	31·25 190
D Amersham (Latimer Ho. Gdns.)	Mr. W. Stephens	8	1 7 400	854	33·63 194
Chesham Bois Rectory	Rev. J. H. Fitzpatrick..	5	0 11 530	786	30·93 194
5.—OUSE. 293 sq. mi.					
D Oving House	H. Yates Thompson, Esq.	5	1 0 515	742	29·21 183
M Oving House	H. Yates Thompson, Esq.	5	1 6 515	735	28·95 ..
D Swanbourne House	Col. Lord Cottesloe	5	1 0 411	785	30·91 176
Winslow (Norden House)	Dr. T. F. Vaisey	5	0 9 ..	712	28·04 ..
D Addington (C. of E. School) ...	J. H. Webster, Esq.	5	0 8 350	657	25·86 173
Stockgrove Pk. [Leighton Buz.]	Mr. J. Clues	5	1 2 500	798	31·42 146
D Buckingham (Adstock Fields) ..	W. Weston, Esq.	5	0 9 352	663	26·09 185
Stony Stratfd. (Calverton Limes)	Mrs. Hawkins	5	1 8 230	669	26·34 160
D Wolverton (St. George's Vic.) ..	Rev. Canon W. L. Harnett	5	1 0 270	656	25·81 181
D Wolverton (The School House) ..	H. J. Hipsley, Esq.	5	1 0 264	628	24·73 181
Wolverton (Council School) ...	H. J. Hipsley, Esq.	5	5 0 263	645	25·41 ..
D Newport Pagnell (The Croft) ...	F. Littleboy, Esq.	5	2 0 191	654	25·73 180
OXFORDSHIRE. (Area, 756 sq. mi.)					
1.—SEVERN—Upper Avon. 10 sq. mi.					
Sibford Ferris (Woolman Cottage)	Joshua Lamb, Esq.	5	1 0 570	656	25·83 ..
2.—THAMES—Windrush & c. 261 sq. mi.					
D Kencot Rectory	Rev. H. E. Cooper	5	1 0 290	699	27·53 189
Charlbury (Cornbury Park) ...	Mr. B. Campbell	5	1 0 435	751	29·57 ..
D Charlbury (Wychwood House) ...	Mrs. J. H. Glen	5	0 8 450	721	28·37 209
D Wootton Rectory	Rev. F. R. Marriott	5	1 0 370	731	28·78 170
D Lyneham	R. de M. Pratt, Esq.	5	1 7 351	768	30·22 188
D Glympton Park	Lt.-Col. Barnett	12	2 6 ..	664	26·14 155
D Chadlington (Langston House) ..	Lt.-Col. F. W. Schofield CMG	5	0 11 420	698	27·49 174
D Sarsden Gardens	Mr. J. E. Vine	5	0 10 538	640	25·20 154
D Chipping Norton (Bungalow.) ...	T. H. Burbidge, Esq. ...	5	1 0 700	774	30·48 184

DIVISION III.—SOUTH MIDLAND COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain. 1918	Days with ·01 in. or more	
		Diam.	Height Above Ground Sea Level				
OXFORDSHIRE—(con.)		in.	ft.	in.	feet	mm.	inches
2.—THAMES—Windrush & c.—(con.)							
D Chipping Norton (Heythrop)	Mr. S. Capon	10	4	0	700	659	25·95 188
3.—THAMES—Cherwell. 250 sq. mi.							
Nuneham Park Gardens	Mr. C. E. Munday	8	3	0	280	701	27·61 ..
D Oxford (Hincksey Pumping Sta.)	W. H. White, Esq., C.E.	8	1	0	187	663	26·09 190
D Oxford (Osney Lock)	Thames Conservancy	5	2	0	186	649	25·56 184
D Oxford (Magdalen College)	J. J. Manley, Esq.	5	1	0	186	657	25·87 184
D Oxford (Magdalen College)	J. J. Manley, Esq.	5	33	11	194	596	23·48 ..
D Oxford (Radcliffe Observatory)	Dr. A. A. Rambaut, F.R.S.	8	1	8	210	689	27·13 199
D Oxford (Radcliffe Observy.) (R)	Dr. A. A. Rambaut, F.R.S.	11	2	4	210	690	27·16 192
Oxford (Northmore Road)	Miss E. M. Tawney	5	1	0	215	651	25·63 ..
D Headington (Warneford Asy.)	Dr. A. W. Neill	5	1	0	300	667	26·25 162
D Headington (Charlton Lea)	Mr. L. Dawes	5	1	0	300	732	28·83 180
D Elsfield Manor House	Miss M. J. Parsons	5	1	0	355	710	27·95 183
D Islip	Col. G. E. Eliot	5	4	6	200	582	22·92 145
Charlton-on-Otmoor School	E. Cartwright, Esq.	6	1	3	197	793	31·23? ..
Middleton Park	The Earl of Jersey	5	2	6	326	719	28·32 170
D Steeple Aston (The Grange)	A. E. Bradshaw, Esq.	8	1	0	400	756	29·75 167
D Steeple Aston (Hill House)	B. S. Ogile, Esq.	5	0	5	400	731	28·77 194
D Swerford	late W. Hall, Esq.	5	1	0	500	796	31·35 198
West Adderbury (St. Amand's)	Miss M. M. Bradford	8	1	0	320	664	26·16 145
D Adderbury (Cross Hill)	G. H. Norris, Esq.	5	1	1	338	604	23·77 175
Adderbury (The Rookery)	C. C. Bradford, Esq.	8	1	0	323	643	25·30 191
D Bodicote House	J. F. Starkey, Esq.	8	1	3	388	635	25·00 170
Bodicote (Draycott House)	F. B. Judge Baldwin, Esq.	5	1	8	391	620	24·41 160
D Bodicote Vicarage	Rev. H. N. Fowler	5	1	6	390	638	25·12 185
Broughton Rectory	Rev. B. W. Bradford	5	0	6	370	682	26·85 189
Wroxton	Hon. Mrs. FitzGerald	12	1	3	590	613	24·15 157
D Shenington School Gardens	Rev. A. Blythman	5	1	3	540	813	32·01 182
4.—THAMES—Thame & c. 210 sq. mi.							
Caversham (Eastfield)	C. M. Powell, Esq.	5	1	0	180	738	29·06 189
Caversham (Kidmore End Sch.)	T. F. Higgins, Esq.	5	0	11	330	850	33·47? 246
D Harpsden (Cray)	B. E. D. Kilburn, Esq.	5	0	8	230	754	29·70 178
D Goring (Elmcroft)	Major E. Gambier Parry	5	0	10	160	695	27·37 156
Henley-on-Thames (Peppard)	Rev. Hubert Shears	5	1	0	336	754	29·67 ..
D Henley-on-Thames (Hart St.)	A. Edward Hobbs, Esq.	5	1	6	110	725	28·55 194
D Henley-on-Thames (Hart St.)	A. Edward Hobbs, Esq.	5	7	6	116	700	27·58 194
D Henley-on-Thames (Greys Lane)	G. Potter, Esq.	5	0	9	123	725	28·55 166
D Benson Observatory	W. H. Dines, Esq., F.R.S.	5	1	0	186	594	23·39 177
Benson Observatory	W. H. Dines, Esq., per M.O.	1	0	0	186	633	24·92 193
D Dorchester (Bishops Court)	T. Latham, Esq.	5	2	0	169	725	28·55 195
D Culham School House	F. Mitchell, Esq.	5	0	10	180	614	24·18 169
D Culham (St. Gabriel's College)	Miss M. A. Taylor	8	1	3	212	614	24·19 170
D Clifton Hampden (Manor House)	Lord Aldenham	5	1	0	190	633	24·91 172
D Watlington (Pyrton Manor)	Major H. Ducat Hamersley	5	1	0	321	652	25·66 162
D Lewknor (Manor House)	Miss Spencer	5	1	3	360	710	27·97 194
Wheatfield	A. J. Spencer, Esq.	5	0	8	275	641	25·22 ..
Toot Baldon (Potlands)	D. Clinkard, Esq.	5	1	0	288	689	27·14 171
D Great Haseley (Manor House)	F. Gelderd-Somervell, Esq.	5	1	0	280	605	23·81 160
Thame (Tythrop House)	A. W. Smith, Esq.	..	..	..	230	656	25·81 ..
Stanton St. John (Woodperry)	J. Thomson, Esq.	6	1	0	399	742	29·23 160
5.—OUSE. 25 sq. mi.							

DIVISION III.—SOUTH MIDLAND COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.				Depth of Rain.		Days with 0.1 in. or more
		Diam.	Height Above Ground Sea Level			1918		
NORTHAMPTONSHIRE. (Area, 1003 sq. mi.)		in.	ft.	in.	feet	mm.	inches	
1.—SEVERN—Upper Avon. 60 sq. mi.								
D Winwick Warren	Col. R. H. Ainsworth ..	8	1	5	648	676	26.63	183
D Naseby Reservoir	T. W. Millner, Esq.	5	1	6	519	641	25.23	193
2.—THAMES—Cherwell. 77 sq. mi.								
D King's Sutton (Astrop)	E. Browne, Esq.	5	1	0	338	651	25.62	172
King's Sutton School	A. H. Tilbury, Esq. ...	5	1	0	300	659	25.94	...
D Grimsbury (Banbury W.W.) ..	W. E. Wood, Esq.	5	1	3	320	559	22.01	190
3.—OUSE. 148 sq. mi.								
D Brackley House	Capt. J. Allen	5	1	0	425	644	25.34	190
Towcester (Easton Neston) ...	J. P. Maitland, Esq. ...	8	1	0	325	642	25.27	168
D Hartwell Vicarage	Rev. C. Ryder-Macnally ..	5	1	10	403	714	28.12	209
Hargrave Hall	C. K. Murchison, Esq. ..	5	1	0	273	555	21.84	..
4.—NENE. 622 sq. mi.								
Salcey Forest	Thomas Jones, Esq.	8	1	3	370	646	25.45	170
D Blisworth (Crieff House)	A. Westley, Esq.	5	1	0	330	610	24.03	181
D Blisworth	T. W. Millner, Esq.	5	1	6	300	574	22.60	192
D Litchborough Hall	Major C. A. Markham ..	5	1	10	500	676	26.62	162
D Castle Ashby	R. G. Scriven, Esq.	5	1	0	263	645	25.38	196
D Little Houghton House	Christopher Smyth, Esq. ..	5	2	2	271	596	23.48	175
D Northampton (Dallington Av.)	Major C. A. Markham ..	5	1	0	265	573	22.57	199
D Northampton (General Hospital)	Major C. A. Markham ..	..	..	..	..	552	21.74	157
Northampton (War Hospital) ..	Major C. A. Markham ..	..	..	..	..	529	20.84	..
Hazelborough Woods	H. Gulliver, Esq., per M.O.	8	1	0	241	622	24.49	191
D Great Billing Rectory	Rev. G. H. Mullins	8	1	6	275	550	21.64	183
D Daventry (Tunnel End)	T. W. Millner, Esq.	5	1	6	394	658	25.91	202
Great Brington	Major C. A. Markham ..	5	2	9	448	563	22.16	..
D Althorp Park	Major C. A. Markham ..	5	1	0	400	636	25.04	173
D Sywell Hall	T. A. Dickson, Esq.	5	1	0	371	635	25.00	169
D Pitsford (Sedgebrook)	Major C. A. Markham ..	5	1	9	311	577	22.72	164
M Pitsford (Sedgebrook)	Major C. A. Markham ..	5	1	0	311	579	22.79	..
D Rushden (Alfred Street School)	S. Saddler, Esq.	5	1	3	200	479	18.87?	170
D Wellingborough (Swanspool) ..	late N. P. Sharman, Esq. ..	5	0	2	155	581	22.89	188
D Wellingborough (Sewage Works)	R. S. Henshaw, Esq., C.E. ..	5	1	0	139	598	23.53	178
D Wellingb'gh (Bushfield W.W.) ..	R. S. Henshaw, Esq., C.E. ..	8	0	11	286	615	24.21	199
D Watford Court	Major C. A. Markham ..	9	1	2	380	630	24.81	164
D Ashby St. Ledgers	Maj. P. E. T. Hibbert ..	5	0	10	500	578	22.75	163
D Ravensthorpe (Coton Mill) ...	Lt.-Col. G. S. Eunson ...	5	1	0	355	630	24.81	180
Brixworth Hall	Mr. J. Sutherland	8	0	8	400	545	21.45	..
Scaldwell	Capt. R. Soames	5	1	0	404	561	22.09	..
D Lamport Hall Gardens	Mr. F. Howard	8	1	2	440	593	23.34	146
D Raunds (Day School)	Major C. A. Markham ..	8	1	0	205	626	24.64	187
D Cranford (Woodford House) ...	E. N. Plevins, Esq.	8	1	0	252	589	23.19	169
D Kettering W.W. (Cransley) ..	T. R. Smith, Esq., C.E. ..	8	0	6	275	562	22.11	166
D Kettering (Sewage Works)	T. R. Smith, Esq., C.E. ..	8	1	0	199	577	22.73	177
D Kettering W.W. (Thorpe Malsor)	T. R. Smith, Esq., C.E. ..	5	0	11	352	585	23.02	169
D Kettering W.W. (Clover Hill) ..	T. R. Smith, Esq., C.E. ..	5	0	7	344	607	23.88	160
Kettering (Warkton)	Mr. R. H. Brett	5	1	3	275	538	21.18	..
Rothwell (Loddington)	Mr. J. Oliff	5	1	0	400	613	24.15	..
D Thrapston (Union Bank)	C. Modlen, Esq.	5	1	0	120	592	23.32	162
D Thrapston (Drayton House) ...	Mr. G. Medcraft	5	1	6	220	615	24.23	172

DIVISION III.—SOUTH MIDLAND COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain. 1918	Days with ·01 in. or more	
		Diam.	Height Above Ground Sea Level				
NORTHAMPTONSHIRE—(con.)		in.	ft.	in.	feet	mm.	inches
4.—NENE—(con.)							
	Clopton Manor.....Mrs. Buckley	6	1	0	245	590	23·25 ..
D	Aldwinkle St. Peter Rectory ..Major C. A. Markham ..	5	0	11	175	558	21·96 143
D	Desborough	F. V. Grudgings, Esq. ..	5	4	0	457	617 24·28 152
D	Rushton Manor	R. A. Willows, Esq.	5	1	0	400	620 24·41 162
D	Rothwell (Shotwell Mill)	C. D. Rochester, Esq....	5	1	6	340	558 21·98 168
D	Barnwell (Lilford Hall)	Mr. F. W. Gallop	5	1	0	..	659 25·93 165
	Oundle (Milton Road)	J. M. Siddons, Esq.	5	3	4	131	463 18·24 ..
	Oundle Waterworks	late N.E. Dixon, Esq., C.E.	5	1	0	147	601 23·67 163
D	Oundle School	F. W. Sanderson Esq.	8	1	1	130	523 20·58 186
D	Corby (Weldon Grange)	John Rooke, Esq.	5	1	0	342	588 23·16 175
D	Deene Rectory.....	Rev. T. Catton .....	..	..	230	568	22·35 194
D	Peterborough (Westbourne Ho.)	E. H. Colman, Esq.	8	1	0	38	540 21·28 169
D	Peterborough (Ashfield)	J. A. Percival, Esq.	5	0	7	30	513 20·21 154
D	Peterborough (Abbeyfields) ...	Major J. Shipley Ellis...	5	0	6	49	564 22·22 171
D	Peterborough (Milton House) ..	Major C. A. Markham ..	..	..	..	648	25·52 146
D	Wittering Rectory	Rev. S. B. Warde	5	1	0	180	550 21·66 180
	Eye (Northolm)	S. M. Egar, Esq. <i>per</i> M.O.	5	1	0	17	574 22·60 182
D	Eye (Newborough)	R. Williams, Esq.	5	1	0	8	580 22·82 157
5.—WELLAND. 96 sq. mi.							
D	Marston Trussell Rectory .. (R)	Rev. J. Knight Law ...	10	2	6	314	563 22·17 174
D	Dingley Hall[Market Harboro']	Maj.-Gen. Lord Downe .	5	1	6	400	593 23·33 150
	Carlton Park Gardens	Mr. R. W. Thatcher ..	5	1	1	400	669 26·34 ..
	Rockingham Castle Gardens ..	Mr. A. E. Higgott	5	4	0	300	623 24·53 145
D	Gretton (Gretton House)	Mr. J. Rogers.....	9	1	0	354	610 24·03 164
D	Gretton School	W. Leeson, Esq.	5	1	0	363	530 20·87 172
	Kings Cliffe (Fineshade Abbey)	Major C. A. Markham ..	5	0	9	200	512 20·17 ..
	Colleyweston (Cuckoo Lodge) .	T. Booth, Esq.	8	3	0	300	530 20·88 ..
	Wittering (Whitewater)	T. Booth, Esq.	8	3	0	241	528 20·78 ..
D	Etton [Market Deeping]	G. Nicholls, Esq.	8	1	0	25	549 21·60 147
HUNTINGDONSHIRE. (Area, 366 sq. mi.)							
1.—OUSE. 327 sq. mi.							
D	St. Neots (Waresley Park).....	Miss Duncombe	5	0	11	190	664 26·14 161
D	St. Neots (Great Paxton)	late Rev. A. G. Cane ...	5	1	0	100	571 22·47 141
D	Hemingford Grey (Millview) ...	G. F. Wilson, Esq.	5	1	6	20	573 22·55 160
D	Huntingdon (Hinchingsbrke.) (R)	Mr. W. Prowting	8	6	0	74	616 24·26 169
D	St. Ives (Slepe House)	Dr. W. R. Grove	5	1	0	25	608 23·93 151
D	Catworth	J. H. Annet, Esq.	5	0	9	210	576 22·67 142
	Whittlesea Mere	Capt. G. E. Mathews, C.E.	8	1	6	10	483 19·02 ..
2.—NENE. 39 sq. mi.							
BEDFORDSHIRE. (Area, 467 sq. mi.)							
1.—THAMES—Colne. 20 sq. mi.							
	Dunstable(Kensworth Vicarage)	Mrs. Litle	5	1	3	585	760 29·91 147
	Luton (Stockwood)	E. R. Crawley, Esq. ..	5	3	0	539	674 26·55 169
2.—THAMES—Lea. 32 sq. mi.							
D	Luton (Pumping Station)	J. W. Tomlinson, Esq., C.E.	5	1	0	343	678 26·71 169
D	Luton (Tennyson Road)	Harold F. Smith, Esq. .	5	1	1	530	705 27·77 184
D	Luton (The Downs)	G. W. Pryer, Esq.	5	1	0	479	743 29·26 177
D	Dunstable(Grammar School) ..	G. Steel, Esq.	5	0	8	480	745 29·33 181

DIVISION III.—SOUTH MIDLAND COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.		Depth of Rain. 1918	Days with ·01 in. or more
		Diam.	Height Above Ground SeaLevel		
BEDFORDSHIRE—(con.)		in.	ft. in. feet	mm.	inches
3.—OUSE. 408 sq. mi.					
D Woburn (Milton Bryant)	.....Mr. C. J. Kilby	5	1 0 510	765	30·12 148
D Shillington	.....Dr. Kilham Roberts	5	1 0 182	634	24·95 162
D Ampthill (Higham Bury)	.....E. J. Jekyll, Esq.	5	1 0 310	722	28·44 181
D Shefford (Upper Stondon)	.....R. Long, Esq.	5	1 0 241	596	23·46 145
D Woburn (Crawley Mill Farm)	.....J. Crabtree, Esq.	8	1 0 292	684	26·92 192
D Woburn(Fruit Farm,Ridgmont)	.....W. H. Neild, Esq.	5	1 0 270	728	28·68 180
D Stotfold(Three CountiesAsylum)	.....Dr. L. O. Fuller	5	1 0 220	572	22·51 172
Lidlington (White Lodge)	.....H. J. Wright, Esq.	5	0 9 200	718	28·26 ..
Shefford (Clifton Bury)	.....A. Inskip, Esq.	5	2 1 150	606	23·85 ..
D Shefford Council School	.....G. F. Alldritt, Esq.	5	1 0 134	532	20·96 164
Shefford (Stanford)	.....H. Inskip, Esq.	5	1 0 60	611	24·06 ..
Sandy (The Lodge)	.....Mrs. Farley	5	1 0 200	559	22·02 ..
D Sandy (Beeston Grange)	.....Col. Maunsell Bowers	5	1 0 80	649	25·54 179
D Bedford (The Park)	.....(R)N. Greenshields, Esq.	8	5 8 123	588	23·14 172
Bedford (Warwick Avenue)	.....L. A. Fawssett, Esq.	5	4 6 120	644	25·36 ..
Bedford (Castle Road)	.....Miss M. E. Newbery	5	7 0 108	647	25·47 155
Goldington (Castle Mills)	.....W. H. Rogers, Esq.	5	1 6 90	647	25·48 ..
D Great Barford House	.....J. ArnoldWhitchurch,Esq	5	1 0 120	617	24·30 158
D Sharnbrook (Castle Close)	.....L. Stileman-Gibbard,Esq.	5	0 8 210	598	23·53 190
D Sharnbrook (Colworth Gardens)	.....Mr. J. Hoad	5	2 0 250	588	23·13 147
4.—NENE. 7 sq. mi.					
CAMBRIDGESHIRE. (Area, 859 sq. mi.)					
1.—STOUR. 17 sq. mi.					
2.—OUSE. 740 sq. mi.					
D Odsey [Ashwell]	.....Sir H. G. Fordham	5	1 0 256	591	23·28 187
Abington Pigotts	.....Mrs. de Courcy-Ireland	8	0 10 ..	538	21·18? ..
Melbourne Vicarage	.....Mrs. de Courcy-Ireland	5	1 2 78	584	22·98 143
Meldreth (Chiswick Farm)	.....A. Howard, Esq.	5	1 1 70	559	22·02 153
D Fowlmere (Fruit Farm)	.....H. F. Smith, Esq.	5	1 0 75	524	20·62 151
Bartlow House Gardens	.....Rev. C. H. Brocklebank	5	0 9 184	565	22·26 ..
D Linton	.....E. F. Suckling, Esq.	5	1 0 141	633	24·93 175
D Foxton (The Bury)	.....J. Gifford, Esq.	5	1 0 60	610	24·03 158
D Whittlesford (Sawston Hall)	.....D. L. Huddleston, Esq.	5	1 1 86	618	24·35 147
D Harston Vicarage	.....Mrs. C. M. Baldwin	5	0 8 47	625	24·62 164
Wimpole Hall	.....Mr. W. J. Snell	5	1 0 141	619	24·36 157
D Gamlingay (Old Woodbury)	.....Hon. C. Hill Trevor	5	0 9 200	612	24·11 171
D Stapleford House	.....J. H. H. Linton, Esq.	5	2 3 64	638	25·13 143
Balsham Rectory	.....Rev. H. J. E. Burrell	5	1 6 399	655	25·78 ..
Grantchester Mill	.....J. Nutter, Esq.	5	5 0 31	628	24·71 ..
Cambridge W.W. (Fleam Dyke)	.....W. W. Gray, Esq., C.E.	5	1 5 99	602	23·70 ..
D Cambridge W.W. (Fulbourne)	.....W. W. Gray, Esq., C.E.	5	1 0 37	589	23·19 176
D Cambridge W.W.(Cherryhinton)	.....W. W. Gray, Esq., C.E.	5	1 0 35	629	24·76 185
D Cambridge (Hills Road, South)	.....Smith Nutter, Esq.	8	0 10 45	663	26·09 189
Cambridge (Herschel House)	.....C. N. H. Lock, Esq.	5	1 0 36	642	25·26 ..
D Cambridge (Sidney Street)	.....Messrs.W.E.Pain&Sons	8	53 0 83	654	25·73 183
D Cambridge (CorporationStoreYd)	.....Julian Julian, Esq., C.E.	5	1 0 52	633	24·92 168
D Cambridge (Tenison Avenue)	.....W. B. Parsons, Esq.	8	1 2 40	650	25·57 172
D Cambridge (Pinehurst)	.....C. F. Foster, Esq.	5	0 10 36	679	26·74 173
D Cambridge (Botanic Gardens)	.....R. Irwin Lynch, Esq.	5	1 1 41	645	25·41 158

DIVISION III.—SOUTH MIDLAND COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.				Depth of Rain.		Days with ·01 in. or more
		Diam.	Height Above Ground		SeaLevel	1918		
CAMBRIDGESHIRE—(con.)		in.	ft.	in.	feet	mm.	inches	
2.—OUSE—(con.)								
D Cambridge (Corporation Ppg.St.)	Julian Julian, Esq., C.E.	5	1	0	28	646	25·42	191
D Boxworth [St. Ives]	E. H. Thornhill, Esq.	5	1	0	76	660	26·00	185
D Swaffham Prior Vicarage	Rev. L. Fisher	5	1	0	44	608	23·93	177
D Burwell	R. Stephenson, Esq.	5	2	0	58	663	26·10	168
Conington Hall [St. Ives]	Philip T. Gardner, Esq.	8	0	5	50	620	24·42	173
D Cottenham (Bernard House)	A. Bull, Esq.	5	2	0	30	625	24·61	151
D Stretham Engine	Mr. J. Housley	9	4	9	13	618	24·32	143
Stretham (Orchard House)	C. Wright, Esq.	8	5	0	42	659	25·94	145
Chatteris (Holwood Farm)	Mr. J. W. Watson	5	0	10	12	549	21·61	..
Littleport (Highfield House)	H. G. Martin, Esq.	8	2	7	67	589	23·18	150
Chatteris (Aylesby House)	A. H. Ruston, Esq.	8	1	0	31	609	23·96	..
Chatteris (The Priory)	H. F. Fryer, Esq.	5	0	7	45	549	21·60	..
D March	Capt. G. E. Mathews, C.E.	9	2	0	10	644	25·36	145
D Upwell (Marmont Priory Lock)	Capt. G. E. Mathews, C.E.	8	1	1	..	608	23·92	178
Upwell (Euximoor House)	J. W. Day, Esq.	5	0	8	15	695	27·35	..
D Wisbech (Queen's Road)	H. Dann, Esq.	5	7	6	10	693	27·30	175
3.—NENE. 102 sq. mi.								
D Stanground Sluice	Capt. G. E. Mathews, C.E.	8	1	6	15	547	21·53	173
D Parson Drove (Clows Cross)	W. Kingston, Esq.	8	3	0	13	558	21·96	157
Wisbech (Bank House)	Lord Peckover of Wisbech	8	0	8	6	627	24·67	167

DIVISION IV.—EASTERN COUNTIES.

ESSEX. (Area, 1532 sq. mi.)

1.—THAMES—Lea. 132 sq. mi.

D West Ham (Abbey Mills)	London County Council	8	1	0	15	765	30·11	180
D Leyton (Sewage Works)	E. H. Essex, Esq.	5	1	0	22	656	25·82	170
D Leytonstone (High Road)	Miss G. Lister	5	1	6	100	842	33·13	165
D Lea Bridge (Waterworks)	Met. Water Board	8	0	6	23	755	29·71	163
D Walthamstow (Ferry Lane)	Met. Water Board	5	0	10	30	705	27·77	182
D Woodford (Haggar Lane)	Met. Water Board	8	0	8	176	735	28·94	173
D Buckhurst Hill Reservoir	Met. Water Board	8	1	7	275	741	29·18	183
D Buckhurst Hill (Ardmore)	Mrs. Eliot Howard	8	1	0	270	877	34·53	173
D Chingford (Crescent Road)	M. L. Mathieson, Esq.	5	2	9	200	701	27·56	182
D Chingford Mill	Met. Water Board	8	0	6	40	709	27·92	172
D Loughton (High Beech Res.)	Met. Water Board	8	1	0	376	758	29·84	182
D Waltham Abbey (Rammey Marsh)	Met. Water Board	8	1	0	60	671	26·40	184
D Waltham Abbey (Pumping Stn.)	Met. Water Board	8	1	3	66	731	28·78	169
D Waltham Abbey (Gunpr. Fact.)	The Superintendent	5	2	0	64	564	22·20	145
D Hatfield Broad Oak (Barrington)	A. H. Gosling, Esq.	5	0	10	300	651	25·62	176
D Hassobury [Bishop Stortford]	L. D. Gosling, Esq.	5	0	10	290	731	28·79	195
D Elsenham (Gaunts End)	H. Cotterell, Esq.	5	1	0	363	699	27·53	189

2.—THAMES—Roding & c. 316 sq. mi.

D Grays (Stanley Road)	A. C. James, Esq., C.E.	5	3	3	21	731	28·78	174
D East Ham (Central Park)	F. J. Kendall, Esq.	12	1	0	12	719	28·30	169
D East Ham Well	Met. Water Board	8	0	11	17	725	28·56	185
D Ilford Sewage Works	J. Sandford, Esq.	5	1	1	31	631	24·86	147
Bulvan (Pear Tree Corner)	Mrs. Read-Andrews	5	1	0	12	678	26·71	..

DIVISION IV.—EASTERN COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.				Depth of Rain. 1918	Days with ·01 in. or more	
		Diam.	Height Above Ground SeaLevel					
ESSEX—(con.)		in.	ft.	in.	feet	mm.	inches	
2.—THAMES—Roding & c—(con.)								
Pitsea Pumping Station.....	Southend Water Works Co.	5	1	0	29	602	23·72	..
D Hornchurch	W. J. Grant, Esq.	8	1	9	46	671	26·43	179
D Wanstead (Red Bridge)	Met. Water Board.....	5	2	2	27	678	26·68	164
Manor Park (Albany Road) ...	A. J. Wilmshurst, Esq. .	5	3	0	40	754	29·69	192
Manor Park (Cemetery)	Mr. J. D. Robertson ...	5	0	6	45	748	29·44	..
D Romford (Harold Wood)	Sir J. G. Broodbank ..	5	4	0	120	675	26·57	200
D Havering Grange.....	G. P. Hope, Esq.....	5	1	0	255	755	29·71	220
D Havering-atte-Bower (Fernside)	Benjamin Smith, Esq. ..	5	1	0	341	789	31·06	222
Chigwell (Grange Court)	Hon. Cecil Baring	5	1	0	190	737	29·00	169
D Theydon Bois (Thriffs Hall) ..	H. B. Debenham, Esq. .	5	0	9	200	744	29·29	195
Epping (The Hemnalls)	Miss A. Nicholl	8	0	8	345	888	34·94	173
D Ongar (Marden Ash)	W. E. Calver, Esq.	5	1	5	190	683	26·88	164
Ongar (Forest Hall)	J. M. Newall, Esq.	5	0	10	210	686	27·02	146
D North Weald (Canes)	H. W. Hart, Esq.	5	1	11	250	732	28·81	172
3.—CROUCH. 186 sq. mi.								
D Shoburyness	Superintend. of Expts. .	8	1	0	13	618	24·32	175
D Southend (Corporation Obsy.) ..	F. W. Venables, Esq. .	8	1	0	90	554	21·79	178
Southend (Broadway)	H. J. G. Ralph, Esq. ...	5	1	0	78	577	22·72	..
Southend (Chalkwell Park)	F. W. Venables, Esq. .	8	1	0	121	584	22·98	..
D Southend (Water Works).....	Southend Water Wks. Co.	8	1	0	112	600	23·62	187
D Leigh Reservoir	Southend Water Wks. Co.	5	1	0	177	620	24·40	175
D Eastwood Pumping Station ..	Southend Water Wks. Co.	8	1	0	50	604	23·78	184
Thundersley Reservoir	Southend Water Wks. Co.	5	1	0	277	604	23·76	..
Rayleigh (Wheatley's Lane) ...	A. H. Goodall, Esq.	5	1	0	255	638	25·13	..
Nevenord Pumping Station ...	Southend Water Wks. Co.	5	1	0	43	659	25·96	..
D Billericay (Service Tank).....	Southend Water Wks. Co.	5	1	0	310	718	28·25	185
D Billericay (Ramsden Hall)	T. W. Bacon, Esq.	5	0	9	260	750	29·90	187
D Wickford (Runwell Hall)	Lt.-Col. H. Kemble.....	5	1	0	75	703	27·69	158
D Rettendon Place	Miss M. Meeson	8	0	10	120	642	25·27	150
Rettendon Rectory	Rev. G. Evans-Gwynne ..	5	0	5	120	620	24·39	..
D Woodham Ferrers (Edwins Hall)	J. W. Hensley, Esq.	5	1	0	181	699	27·53	202
Southminster (The New Moor) ..	E. J. Attenborough, Esq. .	..	..	..	..	691	27·21	..
D Southminster (North End House)	Mrs. Owen	5	1	0	60	632	24·87	165
D Bradwell-on-Sea (Bradwell Hall)	J. C. Chillingworth, Esq.	5	1	1	27	608	23·92	149
4.—BLACKWATER. 425 sq. mi.								
Brentwood (Shenfield, The Lodge)	H. P. Landon, Esq.	5	0	7	303	712	28·02	..
South Hanningfield (Peadowns) ..	W. Hill, Esq., per M.O. .	..	..	..	134	740	29·12	..
Ingatstone (Fryerning)	A. E. Christy, Esq.	5	1	0	291	642	25·28	..
D Maldon (Hazeleigh Rectory) ..	Rev. G. H. Raynor	7	1	1	161	596	23·45	173
D Danbury Rectory	Rev. J. Bridges Plumptre ..	5	1	0	365	688	27·10	183
D Writtle (Melbourne)	J. A. Rosling, Esq.	5	0	9	140	657	25·86	181
D Chelmsford (County Laborat'ries)	R. M. Wilson, Esq.	5	1	0	140	649	25·57	148
D Chelmsford (High Street)	Miss F. J. Chancellor ...	8	1	0	92	636	25·03	187
Roxwell	R. W. Christy, Esq.	5	1	0	180	613	24·14	..
Chignall Hall	Austin Matthews, Esq. .	5	1	4	152	590	23·22	..
D Great Waltham (Chatham Hall)	Col. R. Egerton	5	1	0	156	690	27·18	182
D Great Leighs (Lyons Hall).....	J. H. Tritton, Esq.	5	3	0	130	625	24·61	164
Witham (Faulkbourne Hall) ..	Miss C. L. Parker	5	0	8	100	676	26·60	178
D Hartford End (Leez Priory) ...	M. E. Hughes-Hughes Esq.	5	1	0	170	648	25·53	192
D Kelvedon (Lawn House)	F. Randolph-Symmons Esq.	5	1	0	96	660	25·99	155

DIVISION IV.—EASTERN COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.				Depth of Rain.		Days with ·01 in. or more
		Diam.	Height Above Ground Sea Level			1918		
		in.	ft.	in.	feet	mm.	inches	
ESSEX—(con.)								
4.—BLACKWATER—(con.)								
D Kelvedon (White Barn)	W. & H. J. Sheldrake, Esqs.	5	1	5	135	608	23·93	169
D Kelvedon (Feering Vicarage) ..	Rev. A. F. Curtis	5	1	0	100	699	27·53	181
D Felsted School	J. H. Owen, Esq.	5	1	2	248	654	25·76	168
D Little Dunmow Council School	Miss M. G. Archer	5	1	0	258	605	23·81	156
Little Dunmow (Farm)	Messrs. Hasler & Co., Ltd.	6	0	6	..	594	23·37	..
Great Dunmow	Messrs. Hasler & Co., Ltd.	5	0	6	215	624	24·55	..
Little Dunmow (Throws)	Miss Webb	5	1	4	283	594	23·37	..
Pattiswick Hall	Harris Smith, Esq.	5	0	10	220	600	23·61	..
Great Saling (Saling Grove) ..	Mrs. Nicholls Harrison .	8	1	0	290	606	23·85	143
Great Saling (Woolpits)	Joseph Smith, Esq.	5	1	0	280	608	23·94	..
D Shalford (Littles)	W. F. Hart, Esq.	5	1	8	260	614	24·18	160
5.—COLNE & C. 283 sq. mi.								
Mersey Island (Waldegraves) ..	<i>Essex County Chronicle</i> ..	..	..	..	55	605	23·81	..
D Clacton-on-Sea	Mr. A. W. Shadick	8	1	2	55	602	23·72	176
Great Clacton (Clay Hill)	Philip Smith, Esq.	5	2	0	45	588	23·16	157
D Tiptree	Messrs. Wilkin & Sons Ltd	5	0	6	170	611	24·07	142
Colchester (Berechurch)	R. P. Blyth, Esq.	5	0	9	120	632	24·89	..
D Colchester (King's Ford)	Hon. Lady Digby	5	1	0	103	632	24·87	185
D Colchester (Boro' Surveyor's Off.)	H. Collins, Esq., C.E. . .	8	17	0	82	613	24·12	158
D Lexden (Hill House)	S. F. Hurnard, Esq.	5	1	0	90	606	23·84	191
M Lexden (Hill House)	S. F. Hurnard, Esq.	5	1	0	90	592	23·31	..
Lexden (Home Farm)	Mr. W. Bird	5	1	0	125	625	24·60	..
Lexden Rectory	Rev. T. S. Raffles	5	0	11	100	641	25·23	..
D Great Bromley (Broughton) . . .	W. Arnold Roberts, Esq.	5	1	3	115	669	26·35	153
Earls Colne (Chalkney House) .	H. F. Hills, Esq.	5	1	3	188	664	26·14	150
D Manningtree (Bradfield Lodge) .	G. Hempson, Esq.	5	1	0	113	688	27·10	146
D Halstead (The Brewery)	Lieut E. T. Adams, R.N.V.R.	5	1	0	140	660	25·97	169
Halstead (Grammar School) . . .	Miss Coles	5	1	0	220	700	27·57	..
Great Maplestead (Monk's Lodge)	T. F. Miller, Esq.	5	0	9	230	691	27·20	..
D Great Yeldham (The Oak House)	G. A. Goodchild, Esq. . .	5	2	6	200	627	24·67	162
Great Yeldham (Tilbury Hall) ..	R. E. Vaisey, Esq.	5	1	0	200	648	25·52	166
Ridgewell (Ridgewell Hill) . . .	Miss E. E. W. Gurney ..	5	1	0	269	638	25·11	185
6.—STOUR. 110 sq. mi.								
D Lawford (Dale Hall)	W. H. Richardson, Esq. .	5	1	0	110	664	26·13	142
D Dedham (Dalethorpe)	late J. D. Tremlett, Esq.	5	1	1	54	622	24·48	147
D Bulmer Lodge [Sudbury]	Miss Burke	5	1	3	200	704	27·72	164
7.—OUSE. 80 sq. mi.								
Widdington Rectory	Rev. J. W. Court	5	1	6	340	702	27·64	..
Arkesden (Wood Hall)	Charles Beadle, Esq.	5	1	0	380	699	27·51	..
Great Chesterford Mills	Ernest H. King, Esq. . .	5	1	0	130	620	24·41	..
SUFFOLK. (Area, 1489 sq. mi.)								
1.—STOUR. 271 sq. mi.								
Capel St. Mary School	B. B. Taylor, Esq.	5	1	6	156	649	25·55	154
D Sudbury (Great Cornard)	A. B. Legard, Esq.	5	1	0	100	645	25·41	154
Sudbury (Lunt Fall Reservoir) .	G. H. Rampling, Esq. . .	5	1	3	90	634	24·94	141
D Sudbury (Friars Street)	E. Ransom, Esq.	5	1	7	93	672	26·45	211
D Hitcham Rectory	Rev. R. R. Cobbold . . .	5	1	5	255	684	26·91	195
D Hawkedon Rectory	Rev. B. P. Oakes	5	3	4	305	754	29·69	188
D Cockfield Rectory	Rev. Canon Edwin Hill	5	1	0	305	720	28·36	176

DIVISION IV.—EASTERN COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain.		Days with ·01 in. or more	
		Diam.	Height Above Ground Sea Level		1918			
		in.	ft.	in.	feet	mm.	inches	
SUFFOLK—(con.)								
2.—ORWELL. 166 sq. mi.								
D Ipswich (Rookwood, Copdock)	F. L. Bland, Esq.	8	1	0	164	656	25·84	173
Ipswich (Museum).....	<i>E. Anglian Daily Times</i> .	8	0	10	72	653	25·72	178
D Ipswich (Dale Hall)	Percy Turner, Esq.	8	1	0	135	655	25·77	160
Elmsett (Laurel Cottage)	A. E. Ladbroke, Esq. ..	5	3	0	210	652	25·65	..
D Haughley (Haughley House)...	Major S. H. Creagh.....	5	1	0	188	663	26·10	163
3.—DEBEN & C. 466 sq. mi.								
Felixstowe (Wireless Tel. Stat.)	M. Humphrey Esq. per M.O.	8	1	0	10	665	26·18	177
Bawdsey	W. C. Bennett, Esq.	8	2	0	10	618	24·32	..
D Woodbridge Abbey	Col. R. J. Carthew	8	1	2	46	693	27·28	180
D Orford (The Gables)	E. A. Rope, Esq.	5	0	9	30	777	30·59	158
D Melton (St. Audrey's Hospital)	A. F. Philpott, Esq. ..	8	1	4	74	668	26·30	160
Melton (Bromeswell Rectory) ..	Rev. F. Shadwell	5	1	5	30	610	24·03	151
Rendlesham Hall	Lord Rendlesham	5	1	0	88	550	21·64	..
Charsfield (Red House)	Hugh P. Youngman, Esq.	5	1	9	150	705	27·75	..
Helmingham (Bocking Hall) ..	W. B. Damant, Esq. ..	5	1	6	180	711	27·98	159
D Snape	G. H. Garrett, Esq. ...	5	1	6	50	667	26·25	178
Parham (The High House) ...	H. R. Smith, Esq.	5	1	0	93	668	26·29	..
Campsea Ashe (High House)...	Rt. Hon. The Speaker, M.P.	8	2	6	60	577	22·71	169
Leiston (Lower Abbey)	M. K. Rope, Esq.	5	0	7	30	648	25·51	140
Westleton (St. Helena).....	J. R. Grimsey, Esq.	8	2	0	65	700	27·56	147
D Halesworth (Estate Office) ...	H. S. R. Stanford, Esq.	5	2	0	25	687	27·03	172
Halesworth Rectory.....	Rev. H. C. Newbery ...	5	1	0	..	698	27·47	..
D Wangford (Reydon Grove)	C. P. Runnacles, Esq. .	5	1	5	20	633	24·92	156
D Wangford (Ford House).....	Hon. Agnes Eden	5	0	10	25	695	27·37	152
4.—YARE & C. 208 sq. mi.								
Horham Rectory	Rev. J. E. Soden.....	5	1	4	180	762	30·00	..
D Halesworth (Rumburgh Vic.)	Rev. W. Linton Wilson	5	1	0	148	653	25·70	184
D Herringfleet (The Gables)	G. H. Wyllys, Esq. ...	5	0	8	52	709	27·91	189
D Lound Rectory	Mrs. Howes	5	1	0	63	664	26·16	202
D Lound Pumping Station	Lowestoft Water & Gas Co.	8	1	0	34	653	25·71	155
Fritton Hall	late Mrs. H. E. Buxton .	8	0	10	40	645	25·41	..
Fritton Warren	Gen. R. Upcher, C.B. ..	5	0	6	42	738	29·07	166
D St. Olave's Priory (Boat House)	Surg.-Gen. W. A. S. Wynne	5	1	0	7	740	29·14	170
D Burgh Hall [Yarmouth]	H. P. Frederick, Esq. ..	8	0	6	45	681	26·81	184
5.—OUSE. 378 sq. mi.								
Bradfield St. George School ..	R. W. Thompson, Esq.	5	0	10	300	602	23·71	141
Drinkstone	J. E. Townsend, Esq. ..	5	3	0	220	692	27·23	150
D Little Saxham Rectory	Rev. H. I. Kilner	8	0	10	220	736	28·96	174
D Bury St. Edmunds (Westley)	R. Burrell, Esq.	5	1	0	226	756	29·77	175
D Bury St. Edmunds (Northgate St.)	Rev. J. S. Pratt	5	1	0	100	726	28·59	172
Herringswell Rectory	Rev. E. H. Wright ...	5	1	0	..	664	26·16	..
D Mildenhall	H. R. W. Forster, Esq. .	5	1	3	50	642	25·28	172
M Barningham (The Beeches) ...	Miss A. K. Lingwood ..	8	0	9	136	694	27·31	..
D Elveden Hall	Viscount Iveagh, K.P. .	5	1	0	130	708	27·89	187
NORFOLK. (Area, 2044 sq. mi.)								
1.—YARE. 658 sq. mi.								
D Brockdish Rectory	Rev. Wilson W. White..	8	1	3	115	673	26·50	181
Diss (The Cedars)	Dr. H. M. Speirs	10	1	8	108	631	24·84	..
D Pulham Airship Station	The Air Ministry	8	1	0	126	671	26·41	176

DIVISION IV.—EASTERN COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.				Depth of Rain.		Days with 0.1 in. or more
		Diam.	Height Above Ground SeaLevel			1918		
NORFOLK—(con.)		in.	ft.	in.	feet	mm.	inches	
1.—YARE—(con.)								
D Pulham St. Mary (Hill House)	W. G. Rutter, Esq.	5	1	2	120	675	26.57	180
Pulham Market School	W. H. Pumfrey, Esq. ..	5	1	0	131	722	28.44	..
D Denton Rectory	Ven.Dr. T. H. Bindley..	5	0	10	20	649	25.55	178
D Geldeston [Beccles]	late Miss S. S. Dowson ..	5	1	0	38	686	26.99	189
LongStratton(Gt.MoultonRec.)	Rev. T. D. Chute	5	1	3	150	716	28.17	141
D Ditchingham	W. G. Rutter, Esq.	5	1	0	..	679	26.73	168
D Raveningham Hall [Beccles]	N. H. Bacon, Esq.	8	1	3	60	686	27.00	166
D Wymondham	J. B. Pomeroy, Esq. ...	8	1	3	118	743	29.26	148
D Hingham Hall	E. Noel, Esq.	5	1	1	190	789	31.07	183
D Dunston Hall	A. W. Preston, Esq.	5	4	0	100	722	28.42	173
D Keswick Old Hall	E. Knight, Esq.....	5	1	0	90	721	28.38	181
D Hethersett (Cedar Grange)	A. W. Preston, Esq.	5	0	9	150	732	28.81	177
Little Melton Vicarage	Rev. E. C. S. Upcher ..	5	0	8	110	691	27.22	162
Yarmouth (Sailors' Home)	Meteorological Office ..	8	1	0	13	631	24.84	174
D Yarmouth(Northgate St.)	G. W. Hughes, Esq. ..	5	1	0	7	698	27.47	197
D Yarmouth (R.A.F. Station)	The Air Ministry	8	1	0	22	616	24.26	178
D Norwich(ChristChurchRdEaton)	A. W. Preston, Esq. ...	5	1	0	98	734	28.88	197
Norwich (Carrow House)	Miss Colman	5	1	3	35	708	27.89	..
D Brundall (Blofeld Road)	A. W. Preston, Esq.	5	1	0	55	732	28.83	186
D Norwich (Ipswich Road)	J. H. Willis, Esq.	5	1	0	110	703	27.69	184
D Norwich (Heigham Cemetery)	A. W. Preston, Esq. ...	5	3	2	37	686	27.01	181
D ThorpeSt.Andrew (Thorpehurst)	Capt. J. H.Mander.....	5	1	6	45	692	27.24	176
D Drayton Rectory	A. W. Preston, Esq. ....	..	..	..	..	716	28.21	206
Drayton Hall	J. H. F. Walter, Esq. ..	5	0	9	..	666	26.22	..
Swanton Morley Rectory	A. W. Preston, Esq. ...	5	..	..	105	707	27.84	..
D Bylaugh Park Gardens	Mr. G. Beeton	5	1	0	130	753	29.65	152
D Swanington (Heath House)	P. Norgate, Esq.	5	1	3	91	744	29.27	202
D Great Massingham	Dr. Walter Dick	5	1	0	269	789	31.07	182
D Reepham (Old Brewery House)	A. W. Preston, Esq. ...	..	..	..	150	760	29.93	192
D Cawston Rectory	A. W. Preston, Esq. ...	5	1	0	120	824	32.44	164
D East Rudham	Miss F. E. Mays	5	2	0	140	807	31.76	181
2.—YARE—Bure & c. 368 sq. mi.								
Moulton	A. W. Preston, Esq. ...	4	..	..	..	618	24.31	..
D Acle	A. W. Preston, Esq. ...	5	0	6	51	732	28.80	201
D Sprowston (Oak Lodge)	A. W. Preston, Esq. ...	5	1	0	100	669	26.34	204
D Sprowston Hall	Sir Eustace Gurney ...	5	1	0	90	684	26.93	181
D Yarmouth(Ormesby St.Michael)	Gt. Yarmouth W.W.Co..	8	1	0	21	754	29.67	264
D Aylsham (Rippon Hall)	Major H. S. Marsham...	5	0	6	90	739	29.08	144
D Aylsham (Bank House)	W. C. P. Cooper, Esq. ..	5	0	7	120	736	28.97	157
D Worstead (Frankfort Manor)	J. R. W. Pigott, Esq. ..	5	5	4	50	698	27.48	190
D Worstead (Dilham)	A. W. Preston, Esq. ...	5	0	8	..	751	29.57	219
D Worstead (TheRookery,Dilham)	H. Morse Taylor, Esq. ...	5	31	0	56	715	28.14	164
D Worstead (Lyngate Cottage)	R. J. Cross, Esq.	8	1	0	55	691	27.19	163
D Worstead (The Grange)	Rev. F. W. Walker	5	1	0	40	693	27.29	148
D North Walsham(EmpsonHouse)	W. S. Horn, Esq.	5	1	0	102	668	26.28	181
D North Walsham (Gunton Park)	A. W. Preston, Esq. ...	..	..	..	..	731	28.77	159
D Wickmere	J. Blott, Esq.....	5	6	3	150	710	27.97	191
D Baconsthorpe Rectory	Rev. H. MilnesWalker ..	5	1	6	280	751	29.57	163
D Cromer (Northrepps Hall)	Mrs. R. Gurney	5	0	4	225	748	29.44	193

DIVISION IV.—EASTERN COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Diam.	Rain Gauge.		Depth of Rain. 1918	Days with ·01 in. or more			
			Height Above Ground	SeaLeve					
NORFOLK—(con.)			in.	ft.	in.	feet	mm.	inches	
3.—STIFFKEYS & C. 288 sq. mi.									
	Little Massingham	Rev. P. H. Brereton, <i>per</i> MO	5	1	2	280	818	32·20	190
D	Sandringham House Gardens ..	Mr. T. H. Cook	5	1	1	121	775	30·51	208
	Cromer	Urb. Dis. Council <i>per</i> M.O.	8	1	0	197	567	22·33	213
D	Cromer (The Warren)	F. H. Barclay, Esq.	8	1	8	101	695	27·36	159
D	Langham Episcopi	Rev. J. H. Toy	5	0	6	139	653	25·70	186
D	Blakeney	Mr. R. Lee	5	1	3	29	687	27·03	160
	Wells (Holkham Hall)	Earl of Leicester, G.C.V.O.	12	3	8	39	724	28·51	..
4.—OUSE & C. 683 sq. mi.									
D	Garboldisham	T. P. Godfrey, Esq.	5	1	0	100	714	28·13	167
	Thetford (Ford Street Gdns) ..	Mr. A. Pipe	5	1	0	44	712	28·02	..
D	Thetford (Waterworks)	Mr. E. S. Greenwood ...	8	1	0	170	728	28·67	171
D	Kenninghall Council School ..	A. B. Smith, Esq.	5	1	0	100	781	30·74	150
	Quidenham Hall	Earl of Albemarle, K.C.V.O.	5	1	0	100	742	29·22	147
D	Hargham	Sir H. R. Beevor, Bart.	8	0	3	120	777	30·59	148
D	Caston Rectory	Rev. W. H. Partridge .	5	1	0	148	818	32·21	188
D	Watton	A. A. Gompertz, Esq.	5	1	0	166	803	31·61	166
D	Stoke Ferry (Wereham)	G. Read, Esq.	5	2	3	66	810	31·89	212
D	Downham (Stradsett)	J. C. Cottam, Esq.	5	1	0	55	756	29·76	168
D	Downham (Dial House)	T. H. Wenn, Esq.	5	1	6	..	672	26·45	153
D	Outwell (Wellbreck Sluice)	Capt. G. E. Mathews ...	9	2	6	16	653	25·71	207
D	Emneth	F. M. Bland, Esq.	5	1	0	6	636	25·04	152
D	Swaffham	W. H. Plowright, Esq. .	5	5	0	250	717	28·24	177
D	Swaffham (The Paddock)	H. Lee Warner, Esq. ...	5	0	8	245	779	30·67	182
	Swaffham (Homewood)	Messrs. Vynne & Everett	5	2	7	210	909	35·77	166
D	Sporle	T. S. Matthews, Esq. ...	5	4	0	230	766	30·16	201
D	Swaffham (Little Dunham) ...	A. W. Preston, Esq. ...	5	1	1	320	773	30·45	192
D	Wiggenhall (St. Germans Sluice).	Capt. G. E. Mathews.	8	1	6	..	641	25·23	160
	King's Lynn (Manure Works) .	J. Brown, Esq.	5	3	10	10	653	25·71	..
D	King's Lynn (Gaywood Road) .	S. S. Burlingham, Esq.	5	6	6	14	599	23·60	161
5.—NENE. 47 sq. mi.									

DIVISION V.—SOUTH WESTERN COUNTIES.

WILTSHIRE. (Area, 1375 sq. mi.)

1.—LOWER AVON. 386 sq. mi.						
Corsley (Sturford Mead)	H. Theodore Cookson Esq.	5	1	0	460	969 38·15 193
D W. Lavington (Dauntsey Agr. Sch)	F. O. Solomon, Esq. ..	8	1	5	320	792 31·18 163
D Edington Vicarage	Rev. E. C. Alexander ..	5	0	8	334	847 33·34 188
D Erlestoke Vicarage	Rev. H. S. Travers	5	0	6	320	817 32·17 161
Market Lavington	Miss A. P. Bouverie	5	0	10	290	781 30·75 169
D Trowbridge W.W. (Biss Bottom)	W. W. Gray, Esq., C.E.	5	1	0	311	897 35·33 175
D Trowbridge (Rood Ashton)	Mr. W. Strugnell	8	1	6	250	959 37·74 201
D Bradford (Woodleigh)	A. Scrutton, Esq.	5	2	4	223	888 34·96 176
D Bradford (Winsley Manor) ...	E. W. Knatchbull, Esq.	5	0	6	400	783 30·83 176
D Bradford (Bearfield House) ...	G. A. R. FitzGerald, Esq. KC	5	1	10	290	837 32·94 179
D Bradford (Manvers House) ...	Dr. C. E. S. Flemming .	5	1	0	130	822 32·37 168
D Seend (Cleeve House)	(R) W. Heward Bell, Esq. ..	..	1	0	160	747 29·41 195
D Seend (Manor Cottage)	Rev. E. S. Awdry	5	0	6	105	676 26·60 191

DIVISION V.—SOUTH WESTERN COUNTIES—(continued.)

STATIONS.	AUTHORITIES.	Rain Gauge.		Depth of Rain. 1918	Days with 0.1 in. or more	
		Diam.	Height Above Ground Sea Level			
WILTSHIRE—(con.)		in.	ft. in.	feet	mm.	inches
1.—LOWER AVON—(con.)						
D Seend (Ferrum Towers)	H. W. Langley Haigh, Esq.	8	1 3	250	806	31.74 198
D Holt (The Retreat)	A. V. H. Beaven, Esq.	5	2 6	145	804	31.65 158
D Devizes (Wilts Co. Asylum)	Dr. S. J. Cole	8	2 3	385	720	28.35 157
D Devizes (Highclere)	H. W. Green, Esq.	5	1 6	480	809	31.85 188
D Corsham (Pickwick)	Miss Swayne Farebrother	5	1 0	338	893	35.16 186
D Calne (High Street)	E. W. Brown, Esq.	4	1 0	242	805	31.70 185
Calne (Compton Bassett Gdns.)	Mr. J. Wild	5	2 0	500	837	32.96 187
D Chippenham (Rowden Hill)	Miss A. M. Collen	5	1 4	223	837	32.95 172
Chippenham (Kington Langley)	Charles Garnett, Esq.	8	1 0	270	869	34.23 ..
D Wroughton (Basset Down House)	Mrs. Story Maskelyne	5	1 0	500	865	34.04 182
Malmesbury (Cowbridge House)	C. E. Bertodano Esq. pr MO	5	1 0	236	770	30.32 195
D Malmesbury (Charlton Cottage)	The Countess of Suffolk	6	0 9	400	824	32.44 191
2.—STOUR. 33 sq. mi.						
D Mere (Charnage)	A. R. White, Esq.	5	1 0	426	869	34.22 215
Stourhead	Sir H. Hoare, Bart.	5	1 0	583	1100	43.30 179
D Kilminster Rectory	Rev. H. G. Fox Strangways	5	1 6	710	1154	45.44 266
3.—EAST AVON. 554 sq. mi.						
D Donhead St. Mary (Charlton Ho.)	Dowager Lady Wynford	5	0 7	515	851	33.50 161
D Longford Castle	The Earl of Radnor	5	1 0	141	858	33.80 204
D Semley (Pythouse)	A. J. Richardson, Esq.	5	1 0	510	856	33.71 149
D Tisbury (The Academy)	J. Bristol, Esq.	5	0 9	380	1086	42.76 176
D East Knoyle (Slades)	E. H. Miles, Esq.	5	1 0	590	984	38.72 194
D Fonthill House Gardens	Hugh Morrison, Esq.	5	0 10	400	1059	41.71 205
D Salisbury	W. J. Goodwin, Esq. C.E.	5	2 2	153	824	32.43 170
D Salisbury (Fowlers Hill)	Mrs. T. Awdry	5	1 0	225	809	31.84 167
D Salisbury (Brown Street)	Mrs. T. H. Baker	5	1 0	155	898	35.36 250
D Salisbury (Atherton House)	Wilfrid Fletcher, Esq.	5	0 11	250	863	33.98 212
D Salisbury (Wilton House)	The Earl of Pembroke	8	1 0	180	1032	40.62 183
D Stratford-sub-Castle (Manor Ho.)	Miss F. Carpenter	5	0 9	165	789	31.07 180
Woodford (Court House)	Mrs. Chetwynd Stapylton	5	0 10	200	914	35.98 196
Wylve Rectory	Rev. E. M. Parken	5	1 8	246	842	33.16 176
D Codford St. Mary (Stockton Ho.)	G. Knowles, Esq.	5	1 0	260	896	35.28 183
D Maiden Bradley	The Duke of Somerset	5	1 6	626	1005	39.55 172
Sutton Veny (Greenhill)	R. W. Pretor-Pinney, Esq.	5	1 0	390	948	37.32 ..
D Warminster (Rye Hill)	A. E. Jefferys, Esq.	8	2 0	466	966	38.03 198
D Warminster (Bishopstrow)	P. Benton, Esq.	5	0 10	360	868	34.17 184
D Salisbury Plain (Chitterne Ho.)	Joseph Hayward, Esq.	11	4 0	319	754	29.69 176
D Salisbury Plain (Shrewton)	F. J. Wardale, Esq.	5	0 9	322	858	33.80 204
D Chirton Old Manor Farm	Mr. T. Selfe	5	3 0	374	846	33.29 190
Burbage (C.E. School)	E. S. Webb, Esq.	5	0 10	540	836	32.90 186
D Bishops Cannings	Mrs. H. H. Mogg	5	1 0	446	904	35.60 191
4.—TEST. 77 sq. mi.						
Landford (Northlands)	Mrs. Wigram	5	1 10	167	863	33.97 178
D Winterslow (Roche Court)	Mr. T. H. Crabb	5	0 10	600	868	34.17 168
Ludgershall (Conholt Park)	(R) E. A. Wigan, Esq.	8	1 0	800	945	37.22 ..
5.—THAMES—Kennet. 169 sq. mi.						
D Burbage (Wolfhall Manor)	Major T. G. C. Reynolds	5	3 0	520	870	34.24 197
D Marlborough College	Meddows Taylor, Esq.	5	1 0	425	900	35.44 216
D Marlborough (Mildenhall)	Rev. Gordon Soames	5	1 0	456	836	32.93 168

DIVISION V.—SOUTH WESTERN COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.				Depth of Rain. 1918	Days with ·01 in. or more	
		Diam.	Height Above Ground Sea Level					
WILTSHIRE—(con.)		in.	ft.	in.	feet	mm.	inches	
5.—THAMES—Kennet—(con.)								
D Aldbourne (The Warren)	Henry Brown, Esq.	5	1	0	550	894	35·19	193
Aldbourne (Upham House)	Mrs. Currie	5	1	6	875	864	34·03	170
6.—THAMES—Cole & c. 156 sq. mi.								
D Wroughton (Burderop Park)	A. Ashford, Esq.	5	0	9	570	826	32·53	180
Wanborough Vicarage	Rev. C. F. Burgess	5	1	0	500	744	29·27	156
New Swindon	H. J. Southwell, Esq.	8	0	11	378	743	29·25	..
D Highworth (Hannington Hall)	Mrs. Hussey-Freke	5	1	0	375	704	27·73	180
DORSETSHIRE. (Area, 988 sq. mi.)								
1.—PARRETT. 61 sq. mi.								
D Evershot (Melbury House)	Mr. R. Rintoul	5	1	6	500	918	36·13	170
D Chedington Court	Sir Henry Peto, Bart.	5	1	0	605	1000	39·39	181
D Leigh (Totnel House)	F. W. Trott, Esq. . . . .	..	..	..	..	961	37·83	191
D Sherborne Castle	Mr. T. Turton	5	1	0	195	825	32·48	221
Sherborne (Castleton)	Reading T. Grantham, Esq.	5	1	0	200	765	30·11	..
D Nether Compton Rectory	Rev. Canon E. W. Goodden	5	0	8	160	730	28·72	188
2.—AXE. 25 sq. mi.								
D Broadwindsor (Blackdown Ho.)	C. E. M. Pinney, Esq.	5	0	9	515	1199	47·21	185
Forde Abbey	Freeman Roper, Esq.	5	0	11	226	995	39·17	198
3.—FROME & C. 502 sq. mi.								
Portland Bill (New Lighthouse)	Meteorological Office	8	1	0	19	570	22·44	172
D Portland (H. M. Naval Depôt)	H. K. Chambers, Esq.	8	1	5	23	696	27·41	155
D Weymouth (Westham)	G. Nicholson, Esq.	5	1	0	25	673	26·50	190
D Weymouth (Springfield)	Major J. H. C. Devenish	5	1	3	90	663	26·11	186
D Chickerell (Montevideo)	Mrs. N. M. Richardson	5	1	0	100	704	27·73	199
Tyneham House	Mrs. W. H. Bond	8	1	0	250	780	30·69	166
D Corfe Castle (Kingston Vicarage)	Rev. R. A. Bond	5	1	3	450	786	30·94	171
D Corfe Castle (Bucknowle Ho.)	C. Waterston, Esq.	5	1	7	170	746	29·39	170
D East Lulworth Vicarage	Rev. W. D. Filliter	5	0	9	173	822	32·36	167
D Creech Grange	J. W. G. Bond, Esq.	5	1	0	240	889	35·01	156
D Abbotsbury (New Barn)	J. C. P. White, Esq.	5	1	6	111	778	30·61	192
D Upwey (Friar Waddon)	T. H. Tyson, Esq., C.E.	5	1	0	215	871	34·30	169
D Upwey (Higher Well)	T. H. Tyson, Esq., C.E.	8	1	0	290	831	32·72	166
D Wareham (East Holme)	G. D. Bond, Esq.	5	1	0	24	864	34·01	170
D Wareham (South Street)	S. W. Bennett, Esq.	5	2	6	18	833	32·79	166
Wareham (Binnegar Hall)	Lt.-Col. P. Farrer	5	1	0	65	869	34·20	187
Wareham (Trigon)	Mrs. L. Sturdy	8	1	4	60	826	32·50	..
D Dorchester (Kingscote)	E. A. Ffooks, Esq.	5	1	0	226	890	35·05	172
D Dorchester Water Works	H. D. Strange, Esq.	8	1	0	315	942	37·10	189
D Dorchester (Wollaston House)	Capt. J. E. Acland	5	1	0	200	974	38·33	189
Branksome Park (Kingsfield)	Miss M. Rigden . . . . .	..	..	..	..	752	29·59	..
D Parkstone (Firgrove)	E. N. M. Wadman, Esq.	5	1	0	180	677	26·65	169
D Parkstone (Bournemouth Road)	W. H. Symes, Esq.	5	1	3	160	778	30·61	178
Branksome (Bourne Valley)	Lt.-Col. H. W. Woodall	8	1	3	84	767	30·20	..
D Branksome (Alderney Res.)	Lt.-Col. H. W. Woodall	8	1	3	213	723	28·48	161
Broadstone House	Mrs. Schuster	5	1	0	220	863	33·99	..
D Lyme Regis	E. T. Stoward, Esq.	5	1	0	100	876	34·47	202
D Lyme Regis (Boat Close)	Henry Ellis, Esq.	5	1	6	498	953	37·53	205
D Lyme Regis (Highcliff)	Miss G. Lister	5	1	3	330	846	33·32	196
Charmouth (Hammond's Mead)	A. Barrow, Esq.	5	1	0	50	840	33·08	..

DIVISION V.—SOUTH WESTERN COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.		Depth of Rain.	Days with 0.1 in. or more			
		Diam.	Height Above Ground Sea Level					
		in.	ft.	in.	feet	mm.	inches	
DORSETSHIRE—(con.)								
3.—FROME & C—(con.)								
D Bridport (Westlands)	H. Gordon, Esq., C.E.	5	1	0	110	895	35.22	177
D Bridport (Coneygar)	H. Gordon, Esq., C.E.	5	1	0	110	880	34.64	179
D Bradford Peverell House	Mrs. Middleton	6	1	1	381	1028	40.48	178
D Charminster House	F. W. Beckford, Esq.	5	1	0	216	1032	40.64	203
D Moreton (Oaker's Wood)	Miss Fetherstonhaugh	5	1	0	160	883	34.76	149
D Tolpuddle	Rev. Harold R. Long	5	0	6	200	828	32.58	185
D Pydeltou Vicarage	Rev. A. R. Helps	5	2	8	195	962	37.89	179
Bere Regis (Doddings Farms)	Mr. W. Bedford	8	1	0	100	817	32.17	179
D Bere Regis (Barrow Hill)	Mr. A. C. Lucas	5	1	0	120	848	33.40	166
D Bere Regis (Bloxworth House)	F. G. A. Lane, Esq.	5	1	6	118	908	35.76	173
D Wynford House	Col. Lord Wynford, D.S.O.	5	1	0	410	1120	44.08	195
D Toller Porcorum Vicarage	Rev. C. H. B. Woodd	8	0	10	400	1082	42.61	204
D Cattistock Lodge	H. H. Palairret, Esq.	5	1	0	350	1126	44.33	194
D Cattistock (Bell Cottage)	C. E. Davies, Esq.	8	1	0	365	1112	43.80	206
D Beaminster (Hamilton Lodge)	Fiennes Trotman, Esq.	5	1	0	210	1039	40.90	203
4.—STOUR. 388 sq. mi.								
Kinson (Eglinton)	W. C. Keevil, Esq.	5	0	6	44	808	31.80	204
D Wimborne (Co. de Mullen W.W.)	G. V. Sparrow, Esq., C.E.	5	1	6	82	869	34.20	172
D Wimborne (Corie Mullen For. Hill)	E. Philip Belben, Esq.	8	2	0	300	860	33.85	185
D Winterbourne Whitchurch Vic.	Rev. H. H. Tilney Bassett	8	1	0	241	915	36.03	152
D Sturminster Marshall (Bailie Ho.)	Rev. J. Cross	5	1	0	88	807	31.78	172
Wimborne (Westfield)	Countess of Moray	5	0	8	..	722	28.41	..
D Wimborne (Codford House)	G. H. Batterbury, Esq. MD	5	0	9	69	844	33.25	208
D Blandford (Bryanstone Gardns.)	Mr. J. Jaques	5	1	0	155	1036	40.80	173
D Turnworth	Col. Parry Okeden	5	1	0	473	1062	41.79	200
Horton Vicarage	Rev. R. de Bary	5	1	0	133	767	30.19	..
D Holwell (Westrow House)	W. Warry, Esq.	5	1	0	252	781	30.76	161
D Wimborne St. Giles (St. Giles Ho.)	The Earl of Shaftesbury	5	1	6	165	858	33.76	181
D Gussage St. Michael Manor	Miss Ellen Good	5	1	3	201	828	32.58	180
D Iwerne Minster House Gardens	J. H. Ismay, Esq.	5	1	0	244	855	33.66	198
Ashmore Rectory	Rev. A. J. Reed	8	1	3	700	927	36.48	..
D Shaftesbury (Abbey House)	Rev. H. A. Boys	5	1	2	722	815	32.07	177
D Gillingham (Town Mills)	Mrs. S. H. Stephens	5	1	2	244	872	34.34	189
D Bourton	B. Pope Bartlett, Esq.	5	1	6	353	948	37.33	208
5.—EAST AVON. 12 sq. mi.								
SOUTH DEVON. (Area, 1707 sq. mi.)								
1.—PARRETT. 7 sq. mi.								
D Culmstock (Nicholashayne)	Rev. H. F. Ramsay	5	1	0	477	911	35.88	212
2.—TAMAR & C. 395 sq. mi.								
D Plymouth (Boveysand Lodge)	Rev. H. Case	5	1	6	75	873	34.37	178
D Plymouth (The Hoe)	J. Paton, Esq. C.E.	8	1	0	116	956	37.62	211
D Plymouth (R.A.F. Met. Stn.)	The Air Ministry	8	on roof		160	917	36.09	213
D Plymouth (Drake's Reservoir)	F. Howarth, Esq. C.E.	5	1	0	149	1010	39.76	174
D Plymouth (Hartley Reservoir)	F. Howarth, Esq., C.E.	5	1	0	321	1069	42.07	200
D Plymouth (Freedom Fields)	J. Paton, Esq., C.E.	8	1	0	208	1039	40.90	203
D Devonport (Rowdens Res.)	F. F. Howarth, Esq., C.E.	5	1	0	201	870	34.59	205
D Bickley (Roborough Reservoir)	F. Howarth, Esq., C.E.	5	1	0	548	1278	50.32	227
D Lee Moor Clay Works	R. Martin, Esq.	8	1	0	900	1824	71.79	197
D Bere Alston (Mount Tamar)	T. Ching, Esq.	5	2	0	350	1180	46.80	193

DIVISION V.—SOUTH WESTERN COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge		Depth of Rain. 1918	Days with ·01 in or more.
		Diam.	Height Above Ground SeaLevel		
SOUTH DEVON—(con.)		in.	ft. in. feet	mm.	inches
2.—TAMAR & C—(con.)					
D Bere Alston (Rumleigh)	Sir A. W. Croft, K.C.I.E. . .	5	1 6 125	1174	46·20 240
D Sheepstor Vicarage	Rev. H. H. Breton . . .	8	1 0 749	1873	73·74 232
M Sheepstor	F. Howarth, Esq., C.E. . .	5	1 0 1024	1652	65·02 ..
D Sheepstor (Red Stone)	F. Howarth, Esq., C.E. . .	5	1 0 763	1591	62·63 225
D Sheepstor (Burrator)	F. Howarth, Esq., C.E. . .	5	1 0 755	1756	69·14 225
D Sheepstor (Head Weir)	F. Howarth, Esq., C.E. . .	5	1 0 720	1648	64·90 225
D Dousland Reservoir	F. Howarth, Esq., C.E. . .	5	1 0 721	1455	57·29 225
D Dartmoor (Deancombe Farm) . .	F. Howarth, Esq., C.E. . .	5	1 0 830	1709	67·28 237
D Dartmoor (Lowery)	F. Howarth, Esq., C.E. . .	5	1 0 899	1628	64·11 223
D Dartmoor (Leather Tor Farm) . .	F. Howarth, Esq., C.E. . .	5	1 0 910	1613	63·49 225
M Dartmoor (Siwards Cross)	F. Howarth, Esq., C.E. . .	5	1 0 1200	1661	65·38 ..
M Dartmoor (Cramber Tor)	F. Howarth, Esq., C.E. . .	5	1 0 1435	1487	58·53 ..
D Whitchurch (Ashbrook)	Rev. H. B. Grylls	5	1 0 400	1388	54·65 203
D Tavistock	W. J. Monk, Esq.	5	1 0 457	1370	53·92 224
M Dartmoor (Leeden Tor)	F. Howarth, Esq., C.E. . .	5	1 0 1270	1427	56·18 ..
M Dartmoor (N. Hessary Tor) No. 1 .	F. Howarth, Esq., C.C. . .	5	1 0 1625	1652	65·02 ..
M Dartmoor (N. Hessary Tor) No. 2 .	F. Howarth, Esq., C.E. . .	5	1 0 1502	1669	65·72 ..
Milton Abbot (Endsleigh)	Mr. F. Yole	5	1 0 180	1273	50·11 ..
D Lifton (Kelly House)	Rev. Maitland Kelly . . .	8	2 6 462	1248	49·13 220
D Coryton Manor	R. L. Newman, Esq. . . .	5	1 2 445	1163	45·79 171
D Polapit Tamar [Launceston] . . .	R. C. Coode, Esq.	5	1 0 315	1153	45·40 225
3.—ERM & C. 217 sq. mi.					
D Salcombe (Sandhills)	W. H. Pike, Esq.	5	1 0 118	768	30·25 182
Salcombe	Rev. E. P. Thorpe, <i>per</i> M.O. .	5	1 0 38	847	33·35 184
South Huish	W. Balkwill, Esq.	5	5 6 68	973	38·30 ..
D Kingsbridge (Bank House)	W. H. Skinner, Esq. . . .	5	5 0 65	1022	40·23 175
D East Allington (Fallapit Gdns.) .	W. H. Tucker, Esq. . . .	5	1 0 305	1204	47·40 175
Ermington (Strode)	Capt. H. Gore Hawker . .	5	1 0 75	1084	42·66 162
D Ivybridge (Filliam House)	H. Alger, Esq.	5	1 0 162	1157	45·56 208
D South Brent (Blackadon Aslm.) .	H. Victor Prigg, Esq., C.E. .	5	1 0 607	1139	44·84 222
D South Brent (Glazebrook)	Vere Cholmondeley, Esq. .	5	1 0 450	1580	62·20 190
D South Brent (Great Aish)	Miss Kingwell	5	1 0 500	1612	63·47 212
South Brent (Badworthy)	T. W. Latham, Esq. . . .	5	1 6 550	1863	73·35 ..
4.—DART. 197 sq. mi.					
D Paignton (Queen's Park)	A. J. Holman, Esq. . . .	8	1 0 11	863	33·96 197
Paignton (Torquay Road)	H. Le B. Gunner, Esq. . .	5	1 0 10	863	33·97 ..
D Paignton (Preston)	G. M. Rosling, Esq. . . .	8	1 2 130	856	33·71 199
D Totnes (Berry Pomeroy)	C. Barran, Esq.	5	1 0 185	1032	40·65 190
D Totnes (Staverton)	J. A. Devenish, Esq. . . .	5	0 11 50	979	38·53 175
D Totnes (Broadhempston)	Charles Mole, Esq.	5	1 0 135	959	37·77 193
D Ipplepen Vicarage	Rev. R. D. Cooke	5	1 0 266	954	37·56 189
D Holne (Church Park Cottage) . . .	L. W. Frost, Esq.	5	1 6 620	1706	67·16 214
D Ashburton (Dolbear)	Mrs. W. W. Battiscombe .	5	1 0 300	1197	47·13 181
D Ashburton (Druid House)	J. S. Amery, Esq.	5	1 0 584	1389	54·70 205
D Ashburton (Leusdon Vicarage) . .	Rev. A. Woollcombe . . .	5	1 0 900	1512	59·53 180
D Princetown (Huccaby House) . . .	Maj. H. H. Joll, R.A. . . .	5	0 11 900	1319	51·92 182
Princetown (H.M. Prison)	H. W. Shrimpton, Esq. . .	5	1 0 1335	2186	86·07 ..
Princetown (Two Bridges)	T. C. Bridges, Esq.	5	0 9 1170	2140	84·24 236
Dartmoor (Cowsic Valley)	F. Howarth, Esq., C.E. . .	8	1 6 1352	1773	69·80 ..
M Dartmoor (BlackDunghill) No. 5 .	F. Howarth, Esq., C.E. . .	8	1 0 1590	1359	53·50 ..

DIVISION V.—SOUTH WESTERN COUNTIES—(continued)

STATIONS.	AUTHORITIES.	Rain Gauge.		Depth of Rain. 1918	Days with 0·1 in. or more			
		Diam.	Height Above Ground Sea Level					
SOUTH DEVON—(con.)		in.	ft.	in.	feet	mm.	inches	
4.—DART—(con.)								
M Dartmoor (Beardown Tor) No.3	F. Howarth, Esq., C.E.	1 8	1 0	1550		1260	49·60	..
M Dartmoor White Tor.)...No.1	F. Howarth, Esq., C.E.	1 8	1 0	1640		1298	51·10	..
M Dartmoor (Devil's Tor)...No.2	F. Howarth, Esq., C.E.	1 8	1 0	1785		1537	60·50	..
M Dartmoor (Cowsic Head) .No.4	F. Howarth, Esq., C.E.	1 8	1 0	1580		1796	70·70	..
5.—TEIGN. 209 sq. mi.								
D Torquay (Cary Green)	F. March, Esq.	5	1 0	12		764	30·10	211
Torquay (Merton Lodge)	Miss Brown	5	1 0	250		742	29·20	191
D Torquay (Stoodley Knowle) ..	Col. C. R. Burn, M.P....	5	1 0	150		774	30·47	168
D Newton Abbot (The Chestnuts) .	E. D. Wylie, Esq.	5	0 6	100		856	33·69	217
D Teignmouth (Den Gardens) ...	G. Rossiter, Esq.	5	1 0	20		797	31·37	177
D Teignmouth (Landscape Res)	G. Rossiter, Esq.	8	1 0	136		794	31·24	185
D Teignmouth (Hazledown Res.)	G. Rossiter, Esq.	8	2 0	425		842	33·13	184
D Teignmouth (Shaldon Res.)	G. Rossiter, Esq.	5	1 0	213		837	32·96	174
D Teignmouth (Bonnicliff).....	Miss M. Horner	5	1 0	260		731	28·78	175
D Teignmouth (The Shrubbery) ..	E. A. Norton, Esq.	8	1 0	275		818	32·22	206
Teignmouth (Benton)	W. C. Lake, Esq., M.D.	5	1 0	320		746	29·37	201
D Ilsington School House	W. J. J. H. Burnett, Esq. .	5	1 0	650		1187	46·73	198
D Chudleigh Knighton Vicarage..	Rev. A. H. Skipper.....	5	1 0	110		840	33·05	169
D Bovey Tracey (Blenheim Ho.) .	Mr. E. E. Underdown ..	5	1 0	350		1077	42·39	201
D Lustleigh (Rockmead)	Rev. W. A. Jones	5	1 0	300		1086	42·77	204
D Manaton School	D. W. Horner, Esq.	5	4 6	900		1227	48·31	242
D Moretonhampstead (Bullaton)	S. C. Chapman, Esq., C.E.	8	1 0	928		1034	40·71	214
D Moretonhampstead (Mardon) ..	S. C. Chapman, Esq., C.E.	8	1 0	835		928	36·52	215
North Bovey (Manor House) ..	Mr. G. Laurence	5	1 0	700		1181	46·51	190
D Christow (Kennick)	S. C. Chapman, Esq., C.E.	8	1 0	836		978	38·50	215
D Christow (Smithacott)	S. C. Chapman, Esq., C.E.	5	1 6	861		1009	39·73	211
D Moretonhampstead (Blackingstone)	S. C. Chapman, Esq., C.E.	8	1 0	1158		1112	43·79	214
D Christow (Laployd)	S. C. Chapman, Esq., C.E.	5	1 6	1041		1089	42·89	212
D Moretonhampstead Rectory ..	Rev. S. D. Dewey	5	1 0	600		992	39·06	218
D Moretonhampstead (Tower Pk.)	D. W. Horner, Esq.	5	1 0	642		965	38·00	227
D Chagford (Thornworthy)	H. B. Varwell, Esq.	5	1 0	1180		1925	75·79	210
6.—EXE. 445 sq. mi.								
D Exmouth (Douglas Avenue) ...	Mrs. Gillum	5	0 10	80		719	28·31	192
D Exmouth (Nidderdale)	Mrs. Herbert Stewart ..	5	1 0	51		696	27·38	187
D Exmouth (Manor Grounds) ..	G. W. Ponsford, Esq., C.E.	5	1 0	13		703	27·67	170
D Exmouth (Filters, Salterton Rd.)	G. W. Ponsford, Esq., C.E.	5	1 0	195		778	30·62	193
D Exmouth (Filters, Capel Lane)	G. W. Ponsford, Esq., C.E.	5	1 0	240		753	29·63	189
D Kenton	E. J. Pitt, Esq.	5	1 0	85		780	30·71	173
Lympstone (Newlands)	A. G. Mullins	5	0 5	250		700	27·55	..
D Aylesbeare (Rosamondford) ..	A. T. Loram, Esq.	5	0 10	220		771	30·34	194
D Exeter (Franklyn, St. Thomas)	E. N. Snow, Esq.	5	0 9	100		869	34·20	162
D Exeter (Devon & Exeter Inst.)...	J. E. Coombes, Esq.	5	13 7	155		797	31·38	185
D Exeter (The Close)	Rev. Canon D. McLaren..	5	1 1	140		803	31·60	173
D Exeter (Elmfield House)	W. B. Heberden, Esq., C.B.	5	1 0	100		780	30·69	180
D Exeter (Hele's School)	W. Littler, Esq.....	8	7 0	160		790	31·12	189
Broad Clyst (Brockhill)	Mrs. Bayne.....	5	1 0	80		744	29·28	201
Upton Pyne (The Parsonage)	Rev. A. Hillyard	5	1 0	214		845	33·27	181
D Brampford Speke Station	Mr. A. Tucker	5	1 0	79		759	29·87	154
D Crediton (Hookway)	A. F. Parbury, Esq.	5	1 0	151		842	33·17	191
D Silvertown (Killerton)	Mr. J. Wilson	5	1 0	161		829	32·65	159

DIVISION V.—SOUTH WESTERN COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain. 1918	Days with ·01 in. or more		
		Diam.	Height Above Ground Sea Level					
SOUTH DEVON—(con.)		in.	ft.	in.	feet	mm.	inches	
6.—EXE—(con.)								
D Crediton (Okefield)	Capt. Seymour F. Pope..	5	1.	0	325	893	35·16	203
D Copplestone (Coplestone House)	Miss Pope	5	0	11	315	941	37·04	210
D Cullompton	Murray T. Foster, Esq. .	5	1	0	202	984	38·73	220
D Tiverton (St. Peter Strret)	Miss Gill	5	6	0	270	1014	39·94	204
D Tiverton (Hartnolls)	Maj.-Gen. F. A. Bowles, CB	5	1	6	226	1029	40·52	208
D Hemyock (Windlehurst)	Miss M. E. Tedder	5	1	0	750	968	38·10	232
Bampton (Oakford Rectory)	Rev. F. G. Buller	5	1	0	640	1251	49·25	170
7.—AXE & C. 237 sq. mi.								
D Budleigh Salterton (Lindenwood)	Lt.-Col. J. H. Hamersley	5	1	0	130	790	31·10	166
D Budleigh Salterton (Squabmoor)	G. W. Ponsford, Esq., C.E.	5	1	0	380	830	32·68	190
East Budleigh (Birton Gardens)	Mr. G. H. Shoebridge ..	5	1	0	90	812	31·96	196
East Budleigh (Yettington)	S. Hutton, Esq., C.E. .	5	1	0	300	795	31·29	..
D Sidmouth (Sidmount)	Miss C. M. Radford....	5	1	0	149	859	33·82	203
D Sidmouth (Sidmount)	Miss C. M. Radford....	5	1	0	186	866	34·10	203
Sidmouth (Winslade Cottage)	Miss G. Collins	5	1	0	145	890	35·06	..
D Sidmouth (Salcombe Regis)	J. W. B. Unwin, Esq. .	5	0	7	340	866	34·08	172
D Seaton	Mrs. Pattinson.....	5	0	10	25	839	33·04	198
D Rousdon [Lyme Regis]	Mr. C. Grover	5	1	0	516	846	33·31	200
D Pinhay [Lyme Regis]	Mr. J. F. Stobo	5	1	11	465	946	37·25	202
D Ware [Lyme Regis]	A. J. Woodroffe, Esq. .	5	0	10	318	945	37·19	198
D Ottery St. Mary (West Hill)	B. Stansbury, Esq.	5	1	6	340	863	33·97	206
D Ottery St. Mary (Broad Street)	H. D. Badcock, Esq. ...	5	4	0	170	880	34·64	202
D Ottery St. Mary (Manor Ho.)	W. A. Willock, Esq. .	5	1	2	200	892	35·12	197
D Kilminster (Haddon Corner)	A. Hitchcock, Esq.	5	1	0	400	1023	40·26	208
M Kilminster (Haddon Corner)	A. Hitchcock, Esq.	5	1	0	400	1014	39·94	..
M Kilminster (Summerleaze)	A. Hitchcock, Esq.	5	1	0	82	983	38·69	..
D Membury (Green Down)	James Lee, Esq.	5	1	0	400	1010	39·76	189
D Chardstock Vicarage	Rev. A. Lewis	5	0	8	317	962	37·88	214
NORTH DEVON. (Area, 898 sq. mi.)								
1.—NORTH COAST STREAMS. 77 sq. mi.								
D Woolacombe (Hotel Grounds)	Miss Chichester	5	1	0	60	991	39·03	198
D Morthoe (Twitchen House)	Dr. G. B. Longstaff ...	8	1	0	430	1168	45·99	220
D Ilfracombe (Reservoir)	O. M. Prouse, Esq., C.E.	5	1	0	395	1469	57·84	211
D Ilfracombe (Bickleighscombe)	Mrs. Slade King	5	1	0	300	1294	50·93	218
D Ilfracombe (Langleigh)	H. B. Holland, Esq. ...	5	0	11	127	1271	50·04	215
D Ilfracombe (Meteorological Stn.)	O. M. Prouse, Esq., C.E.	5	1	0	25	1062	41·82	216
D Martinhoe Rectory	Rev. R. W. Oldham ...	5	2	3	808	1391	54·76	207
Lynton (Lee Abbey)	late C. F. Bailey, Esq. .	5	0	6	320	1158	45·59	..
D Lynmouth (Gwynallt)	A. L. Ford, Esq.	8	0	8	284	1310	51·58	212
D Lynmouth (Rock House)	T. H. Mead-Briggs, Esq.	5	0	11	22	1245	49·02	213
2.—TAW. 442 sq. mi.								
D Chumleigh (Leigh House)	Mr. W. Gillies	5	1	0	350	1077	42·41	204
D Witheridge	H. J. Mansfield, Esq. .	5	1	2	600	1132	44·56	185
D Warkleigh Rectory	Rev. J. H. Thompson .	5	1	0	439	1137	44·76	227
Knowstone Vicarage	Rev. J. Eldon Ellison...	5	1	0	700	1542	60·70	..
South Molton	F. Day, Esq.	5	1	0	430	1358	53·48	207
D Filleigh (Castle Hill Gardens)	The Countess Fortescue	12	3	6	317	1326	52·20	225
D Molland	S. J. Case, Esq.	5	1	9	674	1595	62·81	235
D East Anstey (Rhyll Manor)	Mrs. Hancock	5	1	0	850	1287	50·68	193

DIVISION V.—SOUTH WESTERN COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.				Depth of Rain.		Days with ·01 in. or more
		Diam.	Height Above Ground SeaLevel			1918		
NORTH DEVON —(con.)		in. ft. in. feet				mm.	inches	
2.—TAW—(con.)								
Tawstock Court	(R) Basil E. Peto, Esq. M.P.	8	1	0	150	1255	49·40	..
Barnstaple(N.DevonAthenæum)	H. Greaves, Esq.	8	1	0	25	1129	44·45	227
D Barnstaple (Fort Hill)	Rev. F. Sterry	5	2	3	200	1209	47·61	222
D Braunton (Tyspane)	A. M. Norton, Esq.	5	1	0	95	1052	41·42	212
D Arlington Court	Miss Chichester	5	1	0	613	1645	64·78	212
D Challacombe	O. M. Prouse, Esq., C.E.	5	1	2	815	1832	72·12	204
3.—TORRIDGE. 342 sq. mi.								
D Okehampton (Oaklands)	lateMaj.-Gen.E.H.Holley	5	1	0	500	1250	49·22	196
Dolton (Hilliers)	A. Smythies, Esq.	5	1	3	380	1084	42·69	176
D Beaford (Abbots Hill).....	J. Stuckey, Esq.	5	5	0	380	1052	41·40	193
D Torrington (Enfield)	G. M. Doe, Esq.	5	1	0	336	1117	43·96	211
D Parkham (Melbury Moor)	F. Harding, Esq.	5	1	0	633	1397	54·99	204
D Parkham (Melbury Reservoir) .	F. Harding, Esq.	5	1	0	517	1452	57·16	204
D Landcross (South Close).....	C. R. J. Hibbert, Esq. .	5	1	0	100	991	39·01	229
D Bideford (Webbery)	Mrs. C. E. Boyd	5	1	10	355	1017	40·03	206
D Bideford Rectory	Rev.Preb.NewtonLeeke	5	1	2	150	1063	41·86	206
Bideford (Northam Road)	Mr. W. Littlejohns	5	0	6	20	995	39·19	163
Bideford (Slade Park)	J.C.T.Heriz-Smith,Esq. .	5	1	6	188	992	39·04	196
Bideford (Horwood House) ...	Rev. J. Dene	5	1	0	288	918	36·14	219
D Northam (Fairlea).....	Col. F. W. Bennet.....	5	3	0	190	949	37·35	199
D Westward Ho! (Bellevue)	A. H. Boyd, Esq.	8	1	0	200	944	37·15	212
Westward Ho! (RoyalGolfClub)	H. A. G. Bankes, Esq. .	5	1	6	10	884	34·81	179
Instow	Lt.-Col. F. W. Evatt ...	5	1	0	105	937	36·89	..
4.—WEST COAST STREAMS. 32 sq. mi.								
D Hartland Abbey	Mr. G. Sleep.....	5	1	6	222	1002	39·46	187
D Clovelly Court	Mr. H. Tuke.....	5	0	11	360	1424	56·05	212
5.—EXE. 5 sq. mi.								
CORNWALL. (Area, 1357 sq. mi.)								
1.—CAMEL & N.W. COAST STREAMS. 458 sq. mi.								
Phillack Rectory	Rev. Canon A.P.Hockin	5	1	0	70	874	34·40	201
D Redruth (Trewirgie)	A. P. Jenkin, Esq.	5	1	0	399	1127	44·38	221
Redruth (GreenLaneNurseries) .	F. Sanders, Esq.	5	0	6	..	1030	40·53	..
St. Agnes	W. C. Whitworth, Esq. .	5	3	8	318	821	32·32?	196
D Newquay (Tresillian House) ..	Lt.Col.E.Gully-Bennet .	5	2	0	290	1071	42·15	201
D Newquay (Mount Wise) ..	No. 1 Capt. C.C.Vigurs, R.A.M.C.	5	1	0	190	951	37·42	209
D St. Columb Minor (Porthbean)	G. R. Peck, Esq.,	5	1	0	100	934	36·79	197
D Bodmin (Polgwin)	H. D. Foster, Esq.	5	1	0	400	1194	46·99	183
D Bodmin (Castle Hill House) ..	W. G. Wales, Esq., C.E.	5	1	0	484	1266	49·83	224
Helland (Tredethy)	Mrs. Hext	5	1	6	..	1217	47·93	214
Camelford (StannonClayWorks)	N. CornwallChinaClayCo	8	1	5	800	1568	61·73	229
D Bude (Bramble Hill).....	J.E.BarclayBevan,Esq. .	5	0	8	100	1035	40·75	234
D Morwenstow Vicarage	Rev. H. Lynne Jones ..	5	0	10	331	1138	44·79	229
D Morwenstow (Torracombe Man.)	W. W. Martyn, Esq. ..	5	1	0	450	1112	43·79	199
2.—FOWEY & S.E. COAST STREAMS. 620 sq. mi.								
M Lizard	A. P. Jenkin, Esq.	5	1	0	244	863	33·97	..
D Cadgwith (Coastguard Houses)	Miss H. F. Shepherd....	5	1	0	180	873	34·37	215
D Mullion (Polurrian Hotel)	Mr. R. Thomas	5	1	0	230	679	26·75	159
D Mullion (Dry Tree)	The Air Ministry	8	1	0	375	1046	41·20	213
St. Keverne (Lanarth)	P. D. Williams, Esq. ..	5	1	10	290	1143	44·99	218

DIVISION V.—SOUTH WESTERN COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.				Depth of Rain. 1918	Days with ·01 in. or more
		Diam.	Height Above Ground Sea Level				
CORNWALL—(con.)		in.	ft.	in.	feet	mm.	inches
2.—FOWEY & S.E. COAST STREAMS—(con.)							
D St. Keverne (Rosuick Cottage) ..	G. W. Jevons, Esq.	5	1	0	250	1134	44·65 243
Bosahan	Cornwall County Council ..	..	..	..	240	776	30·56? 173
Penzance (Trewidden)	Mr. J. H. Murley	5	0	5	..	1221	48·06 200
Penzance (Lower Larrigan) ...	E. T. Gregory, Esq. ...	5	0	9	70	1050	41·32 201
D Penzance (Morrab Garden) ...	C. H. Benn, Esq.	5	1	0	55	1039	40·91 205
D Penzance (Taroveor Terrace) ..	A. W. Penrose, Esq. ...	4	7	0	100	1048	41·28 206
Penzance (Rosehill)	(R) David Howell, Esq. ...	10	3	0	212	776	30·54? 197
Penzance (Tregwainton House)	T. Robins Bolitho, Esq. 10	1	0	400	1192	46·95 201	
D Penzance (County School)	Lance Webb, Esq.	5	0	6	155	978	38·50 211
Marazion	T. Field Michell, Esq. .	5	2	0	30	952	37·48 188
Falmouth (New Observatory)(R)	Meteorological Office ..	11	2	0	169	1106	43·58 209
D Falmouth (New Observatory) .	Meteorological Office ...	8	1	0	168	1117	43·97 213
D Penryn (Ashfield)	J. G. Stephens, Esq. ...	5	1	1	95	1064	41·88 201
D Redruth (Trevince)	E. B. Beauchamp, Esq. .	8	1	0	240	1268	49·90 231
Truro (Killiow)	Miss Daubuz	5	1	0	230	1050	41·34 224
D Truro (Tregolls)	Miss C. L. Rashleigh ..	5	1	0	65	1031	40·59 216
D Truro W.W.(Lower Tregurrow).	W. J. Lean, Esq.	5	1	0	71	1148	45·20 214
D Fowey (Torfrey)	Mrs. Treffrey	5	0	6	250	1182	46·54 193
D St. Austell (Trevarna)	W. M. Coode, Esq.	5	1	0	300	1208	47·55 217
D Looe (Morval)	H. M. Tremayne, Esq. ..	5	1	0	150	1223	48·15 154
Looe (Bray)	Mrs. G. Sneyd	5	1	0	450	1003	39·68 202
D Lostwithiel (Lanwithan)	Miss Foster	5	1	0	80	1213	47·77 211
D Liskeard (St. Pinnock Rectory).	Rev. S. H. Farwell Roe	5	0	3	400	1555	61·23 229
D Liskeard (Trevillis)	L. C. Foster, Esq.	5	1	0	320	1265	49·79 213
D Bolventor Vicarage	Rev. J. W. Timson	5	2	0	845	2039	80·29 201
3.—TAMAR & C. 279 sq. mi.							
D Empacombe [Devonport]	J. Sandercock, Esq.	5	1	0	20	938	36·95 212
Cremyll [Devonport]	Cornwall County Council .	5	10	0	25	940	37·00 212
Saltash (Pentillie Castle)	Mr. W. T. Johnson	5	2	4	150	1407	55·41? 212
St. Mellion Rectory	Rev. F. T. Wintle	5	1	0	400	1210	47·64 218
D Callington (Pencrebar)	Miss Horndon	5	1	9	450	1245	49·00 219
D Albaston	N. R. Rosekilly, Esq. ..	5	4	0	600	1070	42·14 191
D Launceston (Landue)	Miss S. E. Tregoning ..	5	0	11	225	1226	48·26 228
D Launceston (Hexworthy)	R. B. Rogers, Esq.	5	1	0	270	1143	44·99 218
D Altarnon Sanctuary	Rev. A. H. Thorold	5	1	0	620	1650	64·94 238
North Tamerton (Davies)	Mrs. Bray	5	4	0	390	1051	41·39 211
4.—INSULAR—Isles of Scilly.							
St. Mary's	Meteorological Office ..	8	1	6	131	826	32·51 232
D Tresco Abbey	Maj. A. A. Dorrien Smith	8	3	0	40	870	34·27 217
SOMERSETSHIRE. (Area, 1630 sq. mi.)							
1.—LOWER AVON. 300 sq. mi.							
D Wanstrow (The Manor Cottage).	P. E. B. Warburton, Esq. 5	1	0	465	1014	39·92 169	
Shepton Mallet (Pondsmead) ..	Mr. J. Fletcher	8	1	0	710	1248	49·14 190
D Frome W.W.(Egford)	L. Slaughter, Esq.	8	2	0	270	975	38·39 221
D Frome (Selwood School)	Miss E. M. Coombs	5	1	8	320	868	34·16 194
D Mells (Selwood)	Miss E. G. Horner	5	1	0	344	985	38·77 207
D Binegar (Gurneyslade)	Rev. G. B. Hicks	5	1	0	588	1167	45·93 194
D Stratton on Fosse (Downside Ab.)	Rev. G. B. Hicks	8	1	0	600	1114	43·87 205
D Beckington	E. M. Nelson, Esq.	8	1	3	270	800	31·50 187

DIVISION V.—SOUTH WESTERN COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.		Diam.	Height Above Ground Sea Level	Depth of Rain.		Days with 0.1 in. or more		
						1918				
SOMERSETSHIRE—(con.)						in.	ft. in.	feet	mm.	inches
1.—LOWER AVON—(con.)										
D Beckington (The Cedars)	F. E. Rogers, Esq.	5	1	8	260				848	33.37 173
D Chewton Mendip (The Priory)	The Earl Waldegrave	5	1	0	550				1250	49.21 212
D Chewton Mendip (Waldegrave H.)	J. Hollis, Esq.	5	1	1	440				1200	47.26 203
D Midsomer Norton (Dymboro)	Dr. A. Bulleid	5	1	0	357				943	37.13 175
Radstock	G. H. Gibson, Esq.	8	8	0	330				894	35.18 ..
D E. Harptree (Sherborne Res.)	J. A. McPherson, Esq. C.E.	5	1	0	338				1166	45.91 198
Harptree Hill	J. A. McPherson, Esq. C.E.	8	1	0	784				1159	45.64 ..
D Temple Cloud	Dr. Theodore Martin	5	1	0	340				981	38.61 192
D Clutton (Council School)	J. Pullen, Esq.	5	1	6	420				998	39.28 181
D Dunkerton Rectory	Rev. F. C. Newbery	5	1	0	300				854	33.63 166
D Pensford (Sutton Court)	Lord Strachie	8	1	0	280				1026	40.41 203
Monkton Combe (Crossways)	M. J. Lipscomb, Esq.	5	1	0	180				904	35.60 ..
D Bath (Combe Down)	late Miss Scriven	5	5	0	500				897	35.33 194
D Pensford (Houndstreet House)	H. Leyborne Popham, Esq.	5	0	9	400				915	36.03 198
Chew Magna	J. A. McPherson, Esq., C.E.	5	1	4	180				1013	39.87 180
D Pensford (Publow School Ho.)	A. Hayes, Esq.	5	1	0	230				918	36.16 175
Bath (Royal Institution)	Bath Herald	6	8	0	74				806	31.75 150
D Bath (Henrietta Park)	Bath Corporation	5	1	0	67				802	31.59 180
D Bath (Statutory Hospital)	Bath Corporation	5	1	0	520				869	34.22 157
D Bath (Charlcombe)	J. Dent Young, Esq., C.E.	8	2	0	325				888	34.96 183
D Saltford House	Col. W. V. Rolleston	8	0	8	100				863	33.97 189
D Batheaston Reservoir	J. Dent Young, Esq., C.E.	6	2	0	248				889	34.99 197
Barrow Gurney Reservoir	J. A. McPherson, Esq., C.E.	5	1	6	300				1084	42.67 202
D Failand House	Miss Agnes Fry	5	1	0	385				1039	40.92 200
Portishead (Woodside Cottage)	E. Harvey, Esq.	5	1	2	150				1040	40.96 156
2.—YEO, AXE & BRUE. 405 sq. mi.										
D Castle Cary (Alford House)	Admiral P. F. Tillard	5	1	6	98				803	31.63 175
D Somerton (Butleigh Court)	R. Neville Grenville, Esq.	8	1	2	95				817	32.15 185
D Bruton (Pitcombe Vicarage)	Rev. F. P. Synge	5	2	4	295				879	34.62 216
Bruton (Redlynch Park)	W. F. Pepper, Esq.	5	0	7	390				880	34.66 193
D Bruton (King's School)	Rev. H. A. Boys	5	1	2	200				909	35.79 205
D Ditchat Rectory	Rev. H. H. Tripp	5	1	0	200				859	33.81 205
Street (Leigholt Reservoir)	W. J. Goode, Esq., C.E.	5	0	6	182				740	29.13 ..
D Street (Overleigh House)	J. B. Clark, Esq.	5	0	8	100				736	28.99 186
D Street (Hind Hayes)	Joseph Clark, Esq.	5	1	5	78				748	29.47 164
D Street (Millfield)	W. S. Clark, Esq.	8	1	0	100				780	30.70 188
Street (Council Yard)	W. J. Goode, Esq., C.E.	5	1	0	69				767	30.20 ..
D Glastonbury (Wyrall)	J. Morland, Esq.	5	0	8	110				741	29.17 170
D Chilton Polden	H. R. Carver, Esq.	5	1	0	90				727	28.61 203
D Shepton Mallet (Pilton)	Rev. H. A. Boys	5	1	3	354				940	37.01 217
D Shepton Mallet (Charlton)	C. E. Burnell, Esq.	5	1	0	481				1050	41.32 201
D Shepton Mallet (Field House)	F. H. Berryman, Esq.	5	1	0	500				1065	41.92 201
D Shepton Mallet (Grammar Sch.)	William Aldridge, Esq.	5	1	0	475				1012	39.83 210
D Shepton Mallet (Sewage Farm)	Mr. W. Reader	5	0	8	310				1054	41.51 197
D Wells (The Vicarage)	Ven. Archdeacon W. Farrer	5	1	0	135				940	37.00 206
D Wells (Somerset & Bath Asym.)	J. E. P. Shera, Esq. M.D.	5	1	0	300				981	38.63 188
Wells (Wookey Hole Paper Mills)	W. S. Hodgkinson & Co.	5	1	4	180				927	36.50 ..
D Burnham (Dunstan Ho. Chalbury)	H. A. Smith Spark, Esq.	5	1	0	20				794	31.24 185
D Burnham	W. H. Chowins, Esq., C.E.	8	0	9	24				792	31.20 187
D Burnham (Brent Knoll)	Miss FitzGerald	5	2	0	26				813	32.00 197

DIVISION V.—SOUTH WESTERN COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.		Depth of Rain. 1918	Days with ·01 in. or more		
		Diam.	Height Above Ground Sea Level				
SOMERSETSHIRE—(con.)		in.	ft.	in.	feet	mm.	inches
2.—YEO, AXE & BRUE—(con.)							
Compton Martin	J. A. McPherson, Esq., C.E.	8	1	0	276	1171	46·11 ..
Ubley (Rookery Farm)	J. A. McPherson, Esq., C.E.	8	1	0	525	1268	49·91 ..
D Blagdon (Nordrach-on-Mendip)	W. R. Thurnam, Esq., M.D.	5	0	4	862	1297	51·06 196
D Winscombe (Barton)	A. E. Stephens, Esq. ..	8	1	6	124	910	35·82 150
D Winscombe (Kamiah)	Dr. Caroline Sturge	5	0	10	216	1087	42·78 172
D Winscombe (The Down)	J. Grubb, Esq.	5	1	0	295	1105	43·51 206
Blagdon Hill	J. A. McPherson, Esq., C.E.	8	1	0	550	1079	42·49 ..
Blagdon (Pumping Station) ...	J. A. McPherson, Esq., C.E.	8	0	8	112	986	38·81 188
Blagdon (Coombe Lodge)	J. A. McPherson, Esq., C.E.	8	1	0	388	1080	42·51 ..
Ubley (Pixey Hole)	J. A. McPherson, Esq., C.E.	8	1	0	300	955	37·59 ..
Nempnett (West Town)	J. A. McPherson, Esq., C.E.	8	1	0	263	1050	41·32 ..
Burrington (Burrington Link) .	J. A. McPherson, Esq., C.E.	8	1	0	335	1063	41·86 ..
D Burrington (Langford)	Miss M. B. Smith	5	1	8	40	1067	42·02 198
D Weston-spr-Mare (Clarence Park) ..	W. H. Allen, Esq.	5	1	2	28	953	37·52 173
Butcombe (Cholwell)	J. A. McPherson, Esq., C.E.	8	1	0	370	1080	42·54 ..
D Wrington (The Cottage)	H. C. Bristowe, Esq., M.D.	5	6	0	100	933	36·73 167
D Wrington (The Rectory)	Rev. G. M. Ashdown ...	5	5	0	68	995	39·16 195
D Wrington (West Hay)	Miss M. C. Meade-King .	5	1	8	98	994	39·14 191
Yatton (Chelvey)	J. A. McPherson, Esq., C.E.	8	0	8	60	967	38·08 175
D Flax Bourton (Backwell Hill Ho.) ..	W. Garnett, Esq.	8	1	10	490	1337	52·64? 184
D Flax Bourton (The Grange)	C. Onslow Master, Esq. .	5	1	0	180	932	36·68 164
D Clevedon W.W. (Tickenham Rd.) ..	J. Harger Pye, Esq. ..	5	1	6	70	978	38·50 187
D Clevedon (Bowling Green)	Major A. B. Trestrail .	5	0	11	126	1044	41·11 166
Wraxall (Boys' School)	Ebenezer Brown, Esq. .	5	1	2	80	1066	41·96 177
Wraxall (Rectory)	Mrs. Vaughan	8	3	0	100	984	38·76 188
3.—PARRETT. 568 sq. mi.							
D Crewkerne (The Reservoir)	E. H. Munford, Esq. ..	8	1	0	426	923	36·34 194
D Crewkerne (Bincombe House) ..	Miss Sparks	5	1	2	294	954	37·57 202
D Crewkerne (Merefield House) .	J. Tompsett, Esq.	8	1	1	231	960	37·80 194
D Crewkerne (Monk's Barn) ...	Miss V. Blake	8	0	9	260	877	34·53 206
D Combe St. Nicholas	Rev. H. A. Boys .....	..	..	..	..	1082	42·58 210
Coker Court Gardens	Mr. T. H. Gilham	8	1	6	250	844	33·23 155
D West Coker	G. F. Deedes, Esq.	5	1	6	265	776	30·53 190
D Ilminster (Laurel Bank)	W. Beckwith, Esq. ...	5	1	0	180	819	32·23 191
D Ilminster (Whitelackington Ho.) ..	S. Creed, Esq.	5	3	0	200	873	34·36 197
D Ilminster (Dillington Park) .. (R)	Mr. W. Goldthorpe	8	3	0	161	858	33·78 169
D Yeovil (Gas Works)	G. Fenwick, Esq.	5	22	0	122	740	29·15 162
D Yeovil (Pen Mill Sewage Works) ..	Dr. A. E. Remmett Weaver	5	1	0	102	781	30·74 210
D Wellington (Old Way House) .	T. Fox, Esq.	5	1	1	300	904	35·60 208
D Stoke-under-Ham	Miss Gillett	8	1	0	80	794	31·24 173
D Tintinhull (Manor House)	Rev. Dr. S. J. M. Price .	5	0	10	145	822	32·37 161
D Angersleigh (Blagdon Res.) ...	H. T. Coles, Esq.	8	1	6	590	895	35·25 149
D Angersleigh (Leigh Hill Res.) ..	H. T. Coles, Esq.	8	1	6	525	892	35·12 149
D Angersleigh (Leigh Court)	A. Eastwood, Esq.	8	1	0	360	863	33·97 201
D Milverton (Spring Grove)	C. Roberts Gawen, Esq..	5	0	8	500	1027	40·44 219
D Taunton (The Park)	Dr. H. J. Alford	5	1	0	70	753	29·66 205
D Wiveliscombe (Culverhead) ...	T. R. Marsh, Esq.	5	1	0	450	1067	42·02 184
D Langport (The Grange)	Rev. H. A. Boys	5	1	0	50	687	27·05 196
D Langport (Huish Episcopi)	Miss A. M. Kelway	8	1	1	30	713	28·08 184
D Milverton (The Mount, Halse) ..	Miss S. C. Smith	5	1	2	254	962	37·88 209

DIVISION V.—SOUTH WESTERN COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Diam.	Rain Gauge.			Depth of Rain. 1918	Days with 01 in. or more	
			Height Above Ground SeaLevel					
SOMERSETSHIRE—(con.)			in.	ft.	in.	feet	mm.	inches
3.—PARRETT—(con.)								
D Wincanton (Maperton House)	Mr. L. G. Read	5	1	3	..	936	36.86	219
D North Cadbury Rectory	Rev. H. A. Boys	8	1	3	256	80.3	31.62	198
D Castle Cary (Villa Cary)	Rev. H. A. Boys	..	..	..	..	756	29.75	189
Cothelstone House	C. E. J. Esdaile, Esq.	5	1	0	430	100.2	39.45	192
D Aisholt (Timberscombe)	W. T. White, Esq.	5	1	2	700	92.2	36.31	198
D Bridgwater (Blake Gardens)	F. Parr, Esq., C.E.	5	3	1	27	79.4	31.24	187
D Bridgwater (Ashford)	F. Parr, Esq., C.E.	5	1	5	102	87.2	34.31	181
D Bridgwater (Northfield)	H. C. Salmon, Esq.	5	5	6	50	81.4	32.05	193
D Cannington (Brymore)	H.H.P.Bouverie, Esq.	5	2	0	65	78.5	30.89	194
4.—NORTH COAST STREAMS. 158 sq. mi.								
Williton (Aller Farm)	T. Hosegood, Esq.	5	2	6	175	92.7	36.50	188
D Bicknoller (Willett)	H. C. Venning, Esq.	5	1	0	450	93.2	36.70	150
D Williton (Sampford Brett Ho.)	J. Tracey, Esq.	5	1	3	110	91.1	35.88	210
Williton (The White House)	S. L. Rogers, Esq.	..	..	..	72	86.2	33.94	162
D Quantockshead (St. Audries)	Mr. F. S. Hayne	8	1	0	260	83.9	33.04	172
Kilve	A. E. C. Woodhouse, Esq.	5	1	0	50	81.5	32.09	196
D Dunster (The Schools)	E. S. Cantle, Esq.	5	1	0	200	95.9	37.75	194
D Minehead (Weirfield)	T. F. Twist, Esq.	5	1	0	147	94.9	37.35	179
Porlock (LynchMead, Allerford)	J. Dyke Acland, Esq.	5	1	3	100	104.2	41.01	202
5.—EXE. 122 sq. mi.								
D Dulverton (Exebridge Fishery)	T. F. Tracy, Esq.	5	1	0	410	121.7	47.92	207
D Brushford Rectory	Rev. B. J. du Boe	5	1	0	450	130.5	51.37	214
D Brushford Nurseries	Mr. G. Ruff	5	1	2	400	129.4	50.94	230
D Hawkridge (Liscombe)	Mr. E. W. Darby	5	3	6	980	173.8	68.42	251
D Winsford School	W. Dicker, Esq.	5	1	2	685	159.0	62.62	193
D Cutcombe (Wheddon Cross)	H.H.P.Bouverie, Esq.	5	1	2	945	142.8	56.22	210
Exford (North Ley)	F. G. Heal, Esq.	5	5	0	1000	165.3	65.07	..
6.—AXE. 42 sq. mi.								
Tatworth Vicarage	Rev. H. Stuart King	5	1	4	347	100.8	39.69	204
D Cricket St. Thomas (Cricket Ho.)	Mr. H. M. Harvey	5	1	0	444	103.4	40.69	202
7.—STOUR. 35 sq. mi.								
D Temple Combe Rectory	Rev. J. C. Fox	5	0	6	215	89.4	35.21	194
D Temple Combe (Cheriton Ho.)	Rev. H. A. Boys	..	..	..	..	87.4	34.41	185
D Wincanton (Roundhill Grange)	Maj.-Gen C. H. P. Ducat	5	1	9	380	84.9	33.44	200

DIVISION VI.—WEST MIDLAND COUNTIES.

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

1.—WYE. 50 sq. mi.								
D Castleford [Chepstow]	Mrs. W. R. Lysaght ..	5	0	8	146	101.2	39.83	191
D Pen Moel [Chepstow]	W. R. Price, Esq.	5	1	0	240	105.2	41.43	206
Forest of Dean (Mailscot Lodge) Office of Works, per M.O.		8	1	0	630	75.2	29.61	172
Forest of Dean (Ruardean Hill Lo.) Office of Works, per M.O.		8	1	0	932	80.0	31.48	179
D Lydbrook (Viaduct House) ..	G. S. Damsell, Esq.	5	1	0	95	74.4	29.28	198
2.—SEVERN—Right Bank Tributaries 176 sq. mi.								
Sedbury Park [Chepstow] ...	Col. P. S. Marling, v.c., c.b.,	8	1	0	175	91.8	36.14	171
Forest of Dean (Whitemead Park) Office of Works, per M.O.		8	1	0	200	81.4	32.05	172
Forest of Dean (Blakeney Hill Lo.) Office of Works, per M.O.		8	1	0	500	82.2	32.36	170
Forest of Dean (Worcester Ldge) Office of Works, per M.O.		8	0	11	712	77.9	30.67	161

DIVISION V.—SOUTH WESTERN COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain.		Days with 0.1 in. or more
		Diam.	Height Above Ground Sea Level		1918		
GLOUCESTERSHIRE—(con.)		in.	ft.	in.	feet	mm.	inches
2.—SEVERN—Right Bank Tributaries—(con.)							
Forest of Dean (Edgehills Ldge.) Office of Works, <i>per</i> M.O.		8	1	0	914	735	28.93 173
D Cinderford (Belle Vue Road)...Dr. J. N. Beadles		5	1	1	780	848	33.40 193
D Westbury-on-Severn (Chaxhill) Mrs. Grant		5	3	0	122	714	28.10 213
Oxenhall (Dymock Woods) ...A. S. Walker, Esq.		8	1	0	232	636	25.05 ..
D Tewkesbury (Forthampton Ct.) Mr. H. French		5	1	0	48	576	22.68 146
D Tewkesbury (Upper Lode) ....E. J. Bradley, Esq.		5	1	0	41	486	19.13 149
3.—SEVERN—Left Bank Tributaries. 372 sq. mi.							
D Wickwar .....F. G. Ansell, Esq.		5	1	0	260	832	32.76 166
Thornbury (Thornbury House).H. V. Gillett, Esq.		5	2	1	110	886	34.88 ..
Tortworth Court .....The Earl of Ducie		8	1	0	264	831	32.71 186
Tortworth School .....E. A. Smith, Esq.		5	2	0	264	833	32.79 ..
D Dursley (Woodmancote) .....E. Fryer Smith, Esq.		5	1	0	257	826	32.51 160
D Avening House .....Lady Eleanor Byng		8	1	3	350	832	32.76 157
Berkeley Castle Gardens .....Mr. S. Wathen		5	1	6	62	897	35.30? ..
D Berkeley (Sharpness Docks) ...F. A. Jones, Esq., C.E.		5	3	6	50	745	29.34 182
Minchinhampton (Rowan Cott.) E. Metcalfe Day, Esq.		5	1	0	630	757	29.81 184
D Minchinhampton (Camp Field) .Piers F. Legh, Esq.		5	1	6	650	841	33.12 169
D Stroud (Stanley Park) .....Sir W. H. Marling, Bart.		8	1	0	365	850	33.46 175
D Stroud (Field Place) .....A. W. Stanton, Esq.		5	1	0	226	712	28.05 174
D Stonehouse (Wycliffe College) .W. A. Sibly, Esq.		5	1	0	130	703	27.67 160
D Stonehouse (Parklands) No.1 (R) W. Grey Robinson, Esq.		8	2	6	103	694	27.34 184
Stonehouse (Parklands) ...No.2 W. Grey Robinson, Esq.		5	2	6	103	693	27.30 189
Stroud (Park Farm, Lypiatt) ..E. Armitage, Esq.		5	0	6	720	836	32.93 ..
D Whitminster (The Junction) ..F. A. Jones, Esq., C.E.		5	1	0	32	748	29.47 208
Haresfield Court .....R. I. Tidswell, Esq.		5	1	0	100	789	31.07 208
D Harescombe Grange .....Stamford Hutton, Esq.		5	1	0	557	703	27.67 200
Quedgeley House .....Col. T. F. Curtis Hayward		5	1	0	65	709	27.90 177
D Witcombe Reservoir .....R. Read, Esq., C.E.		8	3	0	297	677	26.66 162
D Gloucester (The Park) .....G. Embrey, Esq.		8	1	3	56	690	27.17 191
Gloucester (Denmark Road) .A. J. Stephens, Esq.		5	1	0	80	635	24.99 ..
D Gloucester (Denmark Road) ..Harley Butt, Esq.		5	1	5	79	635	24.99 189
D Gloucester (Barnwood Vicarage) Rev. F. H. Fowler		5	1	0	80	706	27.79 190
D Gloucester (Llanthony Lock) ..E. J. Bradley, Esq.		5	1	2	39	661	26.04 159
D Gloucester (Maisemore Lock) ..E. J. Bradley, Esq.		5	1	1	39	617	24.30 186
D Churchdown (Barrow Hill) ....Mrs. J. H. Jones		5	1	0	225	668	26.32 183
D Dowdeswell Reservoir .....J. S. Pickering, Esq., C.E.		5	1	3	357	678	26.69 166
Cheltenham (Thirlestane Hall) (R) J. Player, Esq.		8	2	6	240	663	26.12 191
D Charlton Kings (The Grange) Miss E. M. Heberden		5	0	9	300	722	28.44 198
D Cheltenham (Hewletts Res.) ..J. S. Pickering, Esq., C.E.		8	1	6	419	678	26.68 191
D Cheltenham (Sandford Mead) .J. S. Pickering, Esq., C.E.		5	2	6	210	631	24.86 180
Cheltenham (Kemerton Lodge).Rev. Percy Burd		5	1	0	211	666	26.20 190
D Cheltenham (Old Bath Road)..F. A. Jones, Esq., C.E.		5	1	0	290	654	25.75 187
Cheltenham (Elmfield) .....late Major F. Fawkes		5	1	2	220	611	24.07 164
Cheltenham (High Street) ....A. C. Saxby, Esq., <i>per</i> MO		5	1	0	214	607	23.90 151
D Cheltenham (Oxford Lawn)....Miss G. Yates Jones		5	1	4	230	585	23.03 186
D Cheltenham (Swindon) .....J. C. M. Stanton, Esq.		8	1	2	137	634	24.94 189
D Tewkesbury Pumping Station .J. S. Pickering, Esq., C.E.		5	0	9	47	582	22.90 159
Beckford Hall .....Capt. H. A. Case		..	1	0	130	643	25.31 ..
4.—SEVERN—Upper Avon. 99 sq. mi.							
D Winchcombe .....Dr. J. Halliwell		5	1	2	295	659	25.96 194

DIVISION VI.—WEST MIDLAND COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain. 1918	Days with 101 in. or more	
		Diam.	Height Above Ground	Sea Level.			
GLOUCESTERSHIRE—(con.)		in.	ft.	in.	feet	mm.	inches
4.—SEVERN—Upper Avon—(con.)							
D Childswyckham Vicarage	Rev. J. E. Tompson . . .	5	1	9	180	578	22·76 184
D Chipping Campden (Hidcote) . .	Major W. Wright	5	1	0	525	628	24·74 172
D Mickleton (Bank House)	M. J. Salter, Esq.	5	1	0	233	600	23·64 184
5.—LOWER AVON & C. 198 sq. mi.							
D Monkswood Reservoir [Bath] . .	J. Dent Young, Esq., C.E. .	5	2	0	365	817	32·18 201
D Bristol Docks (Underfall Yard) .	Engineer, Bristol Docks. . .	8	19	6	45	838	33·00 191
Bristol (Telephone Avenue)	J. A. McPherson, Esq., C.E. .	5	50	0	80	960	37·81 195
Clifton (Oakfield Road)	J. A. McPherson, Esq., C.E. .	5	1	0	200	1038	40·86 190
D Clifton (Harley Place)	Miss Hooper	5	1	5	260	1080	42·50 216
D Clifton College	late D. Rintoul, Esq. . . .	8	1	2	230	1058	41·63 187
D Clifton (Stoke Bishop)	H. L. P. Lowe, Esq.	8	1	3	243	1032	40·61 186
D Filton	F. W. Gayner, Esq.	5	2	0	202	822	32·38 162
D Winterbourne (Kendleshire) . . .	J. Marsh, Esq.	5	1	0	170	882	34·71 176
D Winterbourne Down (Elm Croft) .	Hugh T. Coles, Esq.	5	1	0	250	920	36·23 200
D Frampton Cotterell (Park Ho.) .	H. H. Harding, Esq.	5	1	0	158	840	33·06 191
D Chipping Sodbury (The Ridge) .	Lt.-Col. P. Burges	5	1	4	375	911	35·87 184
Almondsbury (Over Court Park) .	Meteorological Office . . .	5	1	0	147	909	35·78 193
Badminton Gardens	Mr. J. Pearce	5	1	0	407	896	35·29 190
6.—THAMES—Right Bank Tributaries. 15 sq. mi.							
7.—THAMES—Windrush & c. 333 sq. mi.							
D Fairford (Dunfield, Kempford) .	A. T. Iles, Esq.	5	0	8	260	716	28·20 188
D Fairford (Draycott)	C. W. Edmonds, Esq.	5	2	0	200	762	29·98 173
D Lechlade (St. John's Lock)	R. A. Swarbrick, Esq. . . .	5	2	0	239	642	25·26 179
D Lechlade (Claydon House)	T. T. S. Metcalfe, Esq. . . .	5	1	0	250	668	26·29 191
Lechlade (Southrop)	Thomas Arkell, Esq.	1	0	..	..	645	25·41 ..
D Cirencester (Cripps Mead)	Mrs. Wilfred Cripps	5	0	8	366	847	33·34 205
D Cirencester (Dollarward House) .	C. P. Hooker, Esq.	5	1	6	366	880	34·63 207
D Cirencester (Dollarward House) .	C. P. Hooker, Esq.	8	1	6	366	859	33·81 207
Colesborne Park	H. J. Elwes, Esq.	5	0	9	538	865	34·04 173
D Great Barrington	H. J. Barrett, Esq.	5	1	6	430	740	29·12 194
D Northleach (Sherborne House) .	Mr. A. Mitchell	5	1	0	420	785	30·92 167
D Northleach (Leygore Manor) . .	Arthur E. Moss, Esq.	5	1	0	650	781	30·74 225
D Bourton-on-the-Water (Eastfield) .	E. W. Kendall, Esq.	5	1	6	434	720	28·33 174
D Bourton-on-the-Water (Chardwar) .	G. F. Moore, Esq.	5	1	6	430	717	28·22 201
Bourton-on-the-Water Rectory .	Rev. W. E. White	5	0	10	433	769	30·29 186
Stow-on-the-Wold (Icomb Place) .	Cap. G. H. Simpson Hayward .	8	1	3	500	780	30·70 172
D Stow-on-the-Wold (Quar Wood) .	Mrs. Bryant	5	1	0	690	720	28·34 202
D Stow-on-the-Wold (Maugersbury) .	D. W. Horner, Esq.	5	1	0	590	723	28·46 217
HEREFORDSHIRE. (Area, 840 sq. mi.)							
1.—WYE. 685 sq. mi.							
D Weston-under-Penyard	Dr. G. W. Prevost	5	0	11	290	588	23·16 154
D Ross (Chasedale Observatory) .	F. J. Parsons, Esq.	5	1	0	202	602	23·69 173
D Ross (Birchlea)	Miss M. L. Southall	5	1	0	210	673	26·51 192
D Kentchurch Rectory	Rev. R. P. Dansey	5	1	0	215	888	34·96 195
Brockhampton Court	Col. A. W. Foster	8	4	0	..	724	28·50 ..
D Fownhope (Lower House)	Miss F. Cresswell	5	1	5	200	695	27·37 188
D Fownhope (Morney Cross)	A. P. Maudslay, Esq. . . .	5	0	8	190	630	24·81 162
D Woolhope (The Hyde)	J. A. Thompson, Esq. . . .	5	1	0	440	607	23·90 180

DIVISION VI.—WEST MIDLAND COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.				Depth of Rain. 1918	Days with ·01 in. or more
		Diam.	Height Above Ground SeaLevel				
HEREFORDSHIRE—(con.)		in.	ft.	in.	feet	mm.	inches
1.—WYE—(con.)							
Vowchurch (Whitehouse).....	A. S. Wood, Esq.	5	5	6	450	980	38·60 191
Hereford (Barton House).....	Rev. A. G. Jones.....	8	1	0	187	637	25·08 169
D Hereford (Breinton Court)	H. A. Wadworth, Esq... 5	3	0		238	655	25·77 152
D Hereford (St.Nicholas Street) ..	W. Cooke, Esq.	8	0	10	197	620	24·43 167
D Hereford (Holmer Hall)	Rev. Preb. M. Hopton .. 8	1	3		241	618	24·31 186
D Credenhill (Stretton Sugwas) ..	Capt. S. H. Armitage .. 5	1	0		226	713	28·08 198
D Credenhill	F. E. Whiting, Esq. 5	1	5		275	706	27·80 178
D Burghill Court	Miss E. D. Woodhouse.. 5	1	2		293	689	27·13 181
D Ocle Pychard (Ocle Court) ...	G. Cresswell, Esq. 8	1	2		298	657	25·87 190
D Whitney-on-Wye.....	Mr. W. Burgess	8	1	0	428	912	35·89 206
D Brilley Vicarage	Rev. W. Head	5	1	0	590	927	36·48 208
Sarnesfield Rectory.....	Rev. W. Marshall 5	0	11		400	702	27·63 165
D Weobley School	A. J. Dean, Esq.	5	1	0	320	740	29·14 183
D Pencombe Rectory	Rev. J. SeymourSt. John 5	1	6		520	754	29·69 173
D Pembridge (Dilwyn)	Dr. T. Lambert Hall .. 5	0	8		290	762	30·01 176
Pembridge (Burton Court)....	Lieut.-Col. P. L. Clowes 5	1	6		400	766	30·16 172
D Bromyard (Dumbleton Cottage)T. V. Philpott, Esq. .. 5		1	0		393	716	28·20 181
D Bromyard (Rowden Abbey) ...	H. J. Bailey, Esq. 5	1	0		450	742	29·23 189
D Bromyard (Buckenhill)	Mrs. Phipps	8	1	6	410	710	27·94 160
D Kington (Gravel Hill).....	Col. G. F. Pearson 5	0	8		535	772	30·40 199
D Pembridge (Marston)	H. Langston, Esq. 5	1	5		347	800	31·49 185
D Pembridge (Byletts)	Gen. Sir E. Wood, K.C.B. 5	1	5		350	808	31·79 195
D Kimbolton (Grantsfield).....	Miss E. Hutchinson ... 5	1	0		424	755	29·73 190
Eyton	Rev. B. G. Way	5	1	1	200	686	26·99 ..
Eyton Hall	G. H. Evans, Esq. 5	0	6		300	758	29·86 176
2.—SEVERN—Right Bank Tributaries. 155 sq. mi.							
Much Marcle (The Mount)	Miss A. M. Charles 5	0	8		240	559	22·00 ..
D Ledbury (Orchardleigh)	Miles A. Wood, Esq..... 5	3	6		180	652	25·68 177
D Ledbury (Underdown)	S. H. Bickham, Esq. .. 5	1	0		307	624	24·55 181
M Ledbury (Underdown)	S. H. Bickham, Esq. .. 5	1	0		306	605	23·81 ..
Ledbury (Putley Court)	J. Riley, Esq.	5	1	0	290	670	26·36 175
D Ledbury (WellingtonHeathVic.)	Rev. F. S. Stooke-Vaughan 5	1	2		505	617	24·28 197
Cradley (Mill Bank)	Lt.-Col. E. H. Thurlow . 5	0	10		320	657	25·86 ..
D Leintwardine	Mrs. Charnock	5	1	6	430	900	35·45 215
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	664	26·14 177
Sodylt Hall	W. H. Horsfall, Esq. .. 5	1	0		267	792	31·20 172
3.—SEVERN—Right Bank Tributaries. 722 sq. mi.							
D Ashford House	W. Downes Hall, Esq. .. 5	0	5		315	838	33·00 160
D Bromfield (Oakley Park)	Mr. J. R. Francis	5	1	0	300	759	29·87 176
D Bromfield (Warwick House) ...	F. Brayshaw, Esq. 5	1	0		320	773	30·44 198
D Bitterley Rectory	Rev. Preb. J. R. Burton 5	1	3		509	719	28·30 202
D Clun Forest (Bettws-y-crwyn)..	Irving Watson, Esq. ... 5	2	6		1400	1178	46·36 215
D Craven Arms (Newington Ho.)	R. E. Serjeantson, Esq. 8	1	6		406	654	25·74 168
D Wistanstow Rectory	Rev. W. M. D. LaTouche . 8	1	0		480	703	27·57 172
M Clun Forest (Cwm Ffrydd)	Sydney Wilson, Esq. .. 5	1	0		1155	1047	41·22 ..
D Bishops Castle (Castle Street)	E. Griffiths, Esq. 5	2	0		720	771	30·35 195

DIVISION VI.—WEST MIDLAND COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Diam.	Rain Gauge.		Depth of Rain. 1918	Days with ·01 in. or more	
			Height Above Ground	Sea Level			
SHROPSHIRE—(con.)			in.	ft. in.	feet	mm.	inches
3.—SEVERN—Right Bank Tributaries—(con.)							
D Bishops Castle Vicarage	Rev. C. E. Warner	5	1	6	596	795	31·29 231
Bishops Castle (More Rectory)	Rev. Ridley Relton	6	0	11	600	746	29·35 .
D Church Stretton (Sewage Works)	E. J. Marsh, Esq.	5	1	0	582	916	36·08 219
D Church Stretton (Watling St.)	Mr. W. Bowden	5	1	0	..	959	37·75 204
D Church Stretton (West Leigh)	H. Constantine, Esq.	5	0	8	700	878	34·57 203
D Bridgnorth (Cantreyn)	W. Bayliss, Esq.	5	3	0	290	719	28·32 165
D Bridgnorth (Cantreyn)	W. Bayliss, Esq.	5	0	3	287	755	29·71 165
Bridgnorth (Aldenham Park)	Mr. T. Canning	5	3	9	430	691	27·20 ..
D Church Preen (Preen Manor)	Mr. J. Hopkins	5	1	0	700	765	30·11 177
Church Stretton (Wolstaston)	Rev. G. T. Hall	5	1	5	800	789	31·05 171
D Much Wenlock (Willey Park)	Col. Lord Forester	5	3	0	492	696	27·38 180
Dorrington (Netley Hall)	Miss Hope-Edwardes	5	1	7	351	784	30·87 219
D Shrewsbury (The Abbey House)	Miss F. H. Rouse Boughton	8	1	3	181	713	28·07 193
D Shrewsbury (Highfield)	T. M. Howells, Esq.	5	4	6	250	715	28·14 179
D Shrewsbury (Radbrook Hall)	D. D. Macpherson, Esq.	5	0	9	235	670	26·36 191
4.—SEVERN—Left Bank Tributaries. 564 sq. mi.							
Bridgnorth (Coton Hall)	Lt.-Col. E. M. Wakeman	5	1	6	460	738	29·07 173
D Worfield (School House)	Frank Turner, Esq.	5	1	0	140	720	28·36 198
D Shifnal (Hatton Grange)	Mr. G. Risebrow	5	4	4	262	740	29·14 202
D Shifnal (National Schools)	F. W. Haswell, Esq.	5	1	5	287	743	29·26 190
Wellington W.W. (Wrekin Res.)	G. Riley, Esq., C.E.	8	1	6	490	704	27·70 ..
D Shrewsbury (Sedgeford House)	R. C. Sikes, Esq., C.E.	5	1	0	169	696	27·41 191
Shrewsbury (St. Michael's Sch.)	W. H. Barclay, Esq.	5	30	9	229	689	27·12 ..
Shrewsbury (Roden)	J. W. Nowell, Esq.	8	1	3	208	635	25·01 ..
D Shrewsbury (Fitz Rectory)	Rev. W. Brewster	5	1	2	238	725	28·56 196
D Newport (Aston Hall)	Col. R. Leeke	5	0	11	280	749	29·49 203
D Newport (Edgmond)	W. Bevan, Esq.	5	1	0	225	694	27·34 181
D Newport (Agricultural College)	P. Hedworth Foulkes, Esq.	5	1	0	220	653	25·70 164
D Newport (Chetwynd Park)	Mrs. Burton Borough	5	1	0	240	742	29·21 199
D Newport (Chetwynd Gardens)	Mr. N. Sherwood	5	1	0	250	745	29·32 198
D Cheswardine (Knighton Res.)	G. R. Jebb, Esq., C.E.	5	1	0	351	785	30·89 179
D Oswestry (The Mount Res.)	G. W. Lacey, Esq., C.E.	5	1	0	698	827	32·55 204
D Oswestry (Council School)	E. Compton, Esq.	5	1	0	450	879	34·60 210
D Ellesmere	G. R. Jebb, Esq., C.E.	8	1	0	308	785	30·91 180
D Ellesmere (The Grange)	Mrs. Ashton	5	0	10	340	681	26·82 167
STAFFORDSHIRE. (Area, 1165 sq. mi.)							
1.—MERSEY—Weaver. 50 sq. mi.							
D Biddulph Grange	Robert Heath, Esq.	5	0	7	525	1016	40·02 226
2.—SEVERN—Left Bank Tributaries. 160 sq. mi.							
D Dudley (Shavers End)	F. J. Dixon, Esq., C.E.	5	1	0	744	674	26·52 172
Wolverhampton (Town Hall)	G. Green, Esq., C.E.	5	15	6	481	726	28·59 174
Wolverhampton (West Park)	G. Green, Esq., C.E.	5	1	4	432	749	29·48 185
D Patshull Park	The Earl of Dartmouth	8	1	3	273	726	28·59 146
D Weston Park [Shifnal]	The Earl of Bradford	5	1	6	400	705	27·75 205
D Norbury Junction	G. R. Jebb, Esq., C.E.	8	1	0	332	747	29·41 195
Loynton Hall	Miss M. Burne	5	0	10	390	697	27·43 ..
D Market Drayton (Old Springs)	F. E. Harding, Esq.	5	1	0	423	753	29·65 208
Maer Hall Gardens	Mrs. F. J. Harrison	8	1	6	390	872	34·34 165

DIVISION VI.—WEST MIDLAND COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.				Depth of Rain.		Days with ≥ 1 in. or more
		Diam.	Height Above Ground Sea Level			1918		
STAFFORDSHIRE—(con.)		in.	ft.	in.	feet	mm.	inches	
3.—TRENT—Right Bank Tributaries. 512 sq. mi.								
D West Bromwich.....	(R) A.D. Greatorex, Esq. C.E..	8	1	7	546	688	27.09	168
D Wednesbury (Ocker Hill).....	A. W. Willet, Esq. C.E.	5	1	0	474	767	30.19	201
D Walsall (Bescot Sew. Farm)....	J. Taylor, Esq.	8	0	11	376	795	31.30	171
D Walsall (Wednesbury Sew. Works)	T. Wicks, Esq.	5	2	8	381	753	29.63	186
D Bilston (The Lunt Outfall)	Maj. V. Turner, R.E. ..	8	1	0	422	806	31.75	158
Wolverhampton (Graiseley) ..	E.E.W. Berrington, Esq. .	6	0	9	506	763	30.05	173
D Aldridge (Bourne Vale)	F. J. Dixon, Esq., C.E.	5	1	0	419	662	26.06	170
D Bloxwich (Sneyd Reservoir) ...	A. W. Willet, Esq., C.E.	5	1	0	507	785	30.91	204
D Hammerwich (Cannock Chase Rs)	A. W. Willet, Esq., C.E.	5	1	0	475	716	28.20	210
D Brewood (Belvide Reservoir) ..	G. R. Jebb, Esq., C.E. .	5	1	0	367	672	26.46	179
D Lichfield (St. John Street)	Dr. F. M. Rowland	5	0	10	269	632	24.90	193
D Penkridge (Rodbaston)	G. E. Ward, Esq.	5	0	9	324	792	31.19	171
D Hednesford (Scout House).....	F. J. Dixon, Esq., C.E. .	5	1	0	750	622	24.48	179
D Lichfield (Hanch Reservoir) ...	F. J. Dixon, Esq., C.E..	5	1	0	259	621	24.45	165
D Milford Waterworks	W. Plant, Esq. C.E. ..	5	1	0	246	732	28.81	183
Shugborough	The Earl of Lichfield ...	5	1	0	260	810	31.87	..
Stafford (Rising Brook)	W. Fred. Wright, Esq. ...	5	1	0	273	770	30.32	195
D Stafford (Corporation Dépôt) ..	W. Plant, Esq., C.E. ..	5	1	6	249	774	30.47	192
M Stafford (West Bank, Doxey) ..	Leslie Wilson, Esq.	5	2	0	280	702	27.64	..
D Little Ingestre	Major H. Cecil Gardner ..	8	1	6	..	769	30.26	171
D Eccleshall (Johnson Hall)	Major W. Moat	5	1	1	400	773	30.43	203
Stone (Meece House)	E. J. W. Wood, Esq. .	5	1	6	331	760	29.92	171
D Standon (Hatton W.W.)	R. C. Frain, Esq., C.E..	5	1	8	355	755	29.72	173
4.—TRENT—Left Bank Tributaries. 193 sq. mi.								
D Burton (Hoar Cross)	F. W. Lycett, Esq.	8	1	0	400	823	32.40	178
Burton (Rangemore).....	Mr. H. Barson	5	5	6	424	706	27.79	..
D Burton (Borough Hospital) ...	Dr. J. M. Cowie	8	1	0	152	809	31.86	236
D Burton (Shobnall)	Messrs. Bass & Co., Ltd.	5	5	6	156	663	26.10	197
D Stone (Alleyne's Grammar Sch.)	H. Malcolm Fraser, Esq	5	0	8	415	766	30.16	186
D Longton (The Meir)	R. C. Frain, Esq., C.E..	5	1	0	618	777	30.59	188
5.—TRENT—Dove. 250 sq. mi.								
D Uttoxeter (Greenfields)	W. Ellaway Smith, Esq.	5	1	0	387	853	33.59	189
D Tean (Oak Hill)	Vincent H. Jackson, Esq.	5	2	0	590	851	33.49	196
D Tean (The Heath House)	Lt.-Col. B. H. Philips ..	5	0	6	647	879	34.60	190
Oakamoor (Woodbank)	M. A. Bolton, Esq.	5	1	6	700	920	36.22	201
D Mayfield House [Ashbourne] ..	Graham C. Lawson, Esq..	8	1	0	374	907	35.70	199
Mayfield House [Ashbourne] ..	Graham C. Lawson, Esq.	8	1	0	374	916	36.06	201
D Mayfield (Doveside)	Mr. T. Bridge	8	1	0	421	875	34.45	199
D Leek (Wall Grange)	R. C. Frain, Esq., C.E..	5	1	0	458	928	36.53	233
D Leek (Hillesdon)	J. Wilson, Esq.	5	1	0	750	970	38.17	221
D Leek (Haregate)	Mr. G. Sweetmore	5	0	9	680	1031	40.59	217
WORCESTERSHIRE. (Area, 717 sq. mi.)								
1.—SEVERN—Right Bank Tributaries. 231 sq. mi.								
D Redmarley (Haselden)	Miss F. L. Newbury ..	5	0	5	280	588	23.13	157
Pendock (Littlridge)	Lady Hooker	5	1	0	85	575	22.65	..
Upton-on-Severn (Willow Bank)	J. Selwyn Cowley, Esq.	5	1	3	42	647	25.47	166
D Upton-on-Severn (The Eades) ..	Lt.-Col. E. W. Tennant	5	0	9	100	669	26.33	188
D Malvern (British Camp Res.) ..	W. Osborne Thorp Esq. C.E.	5	0	11	690	663	26.10	172

DIVISION VI.—WEST MIDLAND COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain.		Days with ·01 in. or more
		Diam.	Height Above Ground Sea Level		1918		
WORCESTERSHIRE—(con.)		in.	ft.	in.	feet	mm.	inches
1.—SEVERN—Right Bank Tributaries—(con.)							
D Malvern (Church Street)	W. Osborne Thorp Esq. C.E.	5	1	0	350	685	26·96 170
D Malvern (Belle Vue House)	A. Mander, Esq.	5	4	0	520	699	27·52 197
D Malvern (High School)	E. W. Harris, Esq.	5	1	0	377	655	25·77 192
Malvern (Clarence Road)	S. Bottomley, Esq.	5	1	0	300	653	25·70 ..
D Malvern (Hornycold Road)	Rev. T. Wolseley Lewis	5	1	0	492	626	24·63 161
D Malvern (Madresfield Court)	Mr. W. Crump	8	2	6	125	619	24·37 174
D Knightwick Sanatorium	H. Gordon Smith, Esq.	5	1	0	300	630	24·81 169
D Worcester (Diglis Lock)	E. J. Bradley, Esq.	5	1	0	49	565	22·25 207
D Worcester (Bromwich House)	Rev. Manley Power	5	0	10	200	574	22·58 170
D Worcester (St. John's School)	E. R. Bowen, Esq.	5	1	0	100	560	22·04 170
D Martley Rectory	Rev. J. F. Hastings	5	1	0	220	693	27·27 170
Ombersley (Holt Lock)	E. J. Bradley, Esq.	5	1	1	55	662	26·07 ..
D Shelsley Grange	Lady Hughes	5	1	0	270	647	25·48 152
D Tenbury (St. Michael's)	Miss Hewitt	5	1	0	329	715	28·15 172
D Tenbury (St. Michael's Obsy.)	Frederick Lowe, Esq.	5	1	0	314	696	27·42 184
D Tenbury (Teme Street)	Frederick Lowe, Esq.	5	1	0	180	718	28·28 177
D Tenbury (Rochford Rectory)	Rev. J. Tomson	5	1	0	317	716	28·20 162
D Stockton-on-Teme (Eardiston)	Miss M. Wallace	5	0	8	200	662	26·07 160
Stourport (Areley Hall)	F. Z. Lloyd, Esq.	5	1	0	73	666	26·21 ..
D Bewdley (Winterdyne)	Miss K. M. Sturt	5	1	0	100	681	26·81 173
M Bewdley (Winterdyne)	Miss K. M. Sturt . . . . .	..	..	..	100	742	29·22 ..
2.—SEVERN—Left Bank Tributaries. 194 sq. mi.							
D Kempsey (The Lodge)	Mrs. Isaac	5	0	9	80	534	21·03 158
Worcester (Belmont Road)	G. B. Wetherall, Esq.	5	1	1	180	507	19·95 164
D Worcester (Water Works)	T. Caink, Esq., C.E.	5	0	9	56	533	20·97 166
D Worcester (Barbourne)	B. Brotherton, Esq.	5	1	0	92	557	21·92 170
D Worcester (Hindlip Hall)	Hon. C. S. K. Allsopp	6	1	0	201	620	24·40 162
D Worcester (Bevere Lock)	E. J. Bradley Esq.	5	1	1	52	603	23·75 155
D Droitwich (Friar Street Dépôt)	H. Hulse, Esq., C.E.	12	2	9	95	607	23·91 169
D Bromsgrove (Tardebigge Res.)	F. A. Jones, Esq., C.E.	5	4	6	455	664	26·13 176
D Barnt Green (Upwood)	Miss M. Gibbins	5	0	9	650	627	24·70 193
D Stourport (Lincombe Lock)	E. J. Bradley, Esq.	5	1	0	62	731	28·77 163
D Kidderminster (Brinton Park)	Mr. J. T. Cowderoy	5	1	0	160	648	25·53 176
Kidderminster (Park Hall)	G. E. Wilson, Esq.	5	0	6	200	757	29·79 ..
D Pedmore (The Dene)	T. Grazebrook, Esq.	5	0	6	340	684	26·94 162
D Stourbridge	W. Fiddian, Esq.	8	0	11	210	741	29·18 183
D Halesowen (Hasbury Cottage)	Rev. A. S. Rashleigh	5	1	1	532	748	29·44 190
D Netherton (Lodge Farm Res.)	A. W. Willett, Esq., C.E.	5	1	0	445	670	26·37 168
D Dudley (Borough Cemetery)	J. Gammage, Esq., C.E.	5	1	3	591	693	27·29 187
D Dudley (Trindle House)	S. Staffs Drainage Comm.	8	1	0	575	845	33·27 ..
3.—SEVERN—Upper Avon. 260 sq. mi.							
D Blockley (Upton Wold)	E. W. Arkell, Esq.	5	1	0	800	802	31·56 200
Bredon (The Croft)	Jasper Lambert, Esq.	5	1	1	120	599	23·59 145
D Shipston (Tidmington House)	Miss Staunton	5	1	1	233	720	28·36 150
D Evesham (Bengeworth)	Messrs. Ross Bros., Ltd.	5	1	0	128	544	21·43 164
Evesham (Lansdowne)	R. Burlingham, Esq.	5	5	0	108	597	23·52 ..
Evesham (Rossyvera House)	R. Burlingham, Esq.	5	1	0	163	532	20·96 ..
Evesham (Sewage Works)	H. S. Harvey, Esq.	8	3	0	86	537	21·13 162
D Evesham (Great Hampton)	H. C. Boutflower, Esq.	5	1	0	150	530	20·86 162
D Shipston (Armscote)	W. L. Stanton, Esq.	5	1	1	241	649	25·56 189

DIVISION VI.—WEST MIDLAND COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.		Depth of Rain.		Days with ·01 in. or more	
		Diam.	Height Above Ground Sea Level	1918			
WORCESTERSHIRE—(con.)		in.	ft.	in.	feet	mm	inches
3.—SEVERN—Upper Avon—(con.)							
D Shipston (Talton)	Capt. G. Lainson Field..	8	1	0	160	616	24·24 168
Shipston (Cookhill Co. School)	T. Barber, Esq.	5	1	0	400	566	22·29 162
D Redditch (Hewell Gardens)	Mr. J. J. Graham	5	1	0	469	674	26·55 206
D Alvechurch (Bordesley Hall)	A. H. Wiggin, Esq.	4	0	499	734	28·91 186	
D Alvechurch (High Croft)	D. B. Grubb, Esq.	5	1	0	580	742	29·21 185
D Alvechurch (Fairfield)	D. McMichael, Esq.	5	1	0	400	730	28·74 166
D Bromsgrove (Lower Bittal Res.)	F. A. Jones, Esq., C.E.	5	3	0	457	673	26·50 168
4.—THAMES—Windrush & c. 10 sq. mi.							
5.—TRENT—Right Bank Tributaries. 22 sq. mi.							
D Halesowen (Frankley)	E. Antony Lees, Esq.	5	0	10	570	802	31·56 228
WARWICKSHIRE. (Area, 942 sq. mi.)							
1.—SEVERN—Upper Avon. 603 sq. mi.							
D Long Compton (Weston Park)	H. A. Warriner, Esq.	8	3	0	510	630	24·79 177
Shipston (Honington Vicarage)	Rev. E. H. Boddington	5	0	10	215	609	23·97 175
D Bidford (Moor Hall)	E. H. Cubberley, Esq.	5	1	0	125	571	22·49 179
D Kineton (Lodge Farm)	L. G. Slade, Esq.	8	1	2	403	702	27·65 153
D Wormleighton Hall	F. W. Burnett, Esq.	5	4	9	515	657	25·88 174
Stratford-on-Avon (Avonfield)	G. W. Everard, Esq.	5	0	10	120	599	23·58 161
D Stratford-on-Avon (Shottery H.)	R. C. Carter, Esq.	5	0	8	140	607	23·91 149
Alcester (Ragley Hall)	Mr. C. Harding	5	1	0	270	583	22·97 ..
Ashorne	Mr. G. T. Osborn	5	1	0	160	620	24·39 ..
Snitterfield	F. W. Jones, Esq.	8	1	6	274	722	28·41 ..
Southam (Stockton House)	G. B. Blyth, Esq.	6	1	4	394	577	22·71 184
D Studley College	Miss E. H. Ekins	5	0	9	235	625	24·61 179
D Warwick (Castle Gardens)	Mr. H. F. Smale	8	1	2	197	692	27·25 160
D Leamington (Pump Room Gdns.)	H. Gibbins Ward, Esq.	8	0	9	50	593	23·33 157
Hatton House	(R) Mrs. J. P. Arkwright	10	4	11	370	659	25·93 179
Willoughby Vicarage	Rev. H. Trethewy	5	1	0	300	589	23·19 188
D Lapworth (Ardenhill)	(R) A. R. Walker, Esq.	8	4	6	420	662	26·07 164
Lapworth Croft	T. Birkett Barker, Esq.	5	1	6	410	702	27·64 154
D Kenilworth (Great Gatehouse)	K. Rotherham, Esq.	5	1	0	..	632	24·87 152
Rugby (Temple Observatory)	BB Dickinson, Esq. per MO	5	1	1	383	588	23·15 153
D Stretton-on-Dunsmore	Mrs. Lister-Kaye	5	0	9	295	656	25·83 165
D Ryton-on-Dunsmore (Ryton Ho.)	Charles Browett, Esq.	5	1	2	260	674	26·54 145
D Kings Newnham	J. Brierly, Esq.	5	1	0	300	627	24·68 175
D Coventry (Radcliffe Road)	J. B. Morris, Esq.	5	1	0	339	684	26·93 192
D Coventry (City Hospital)	E. H. Snell, Esq., M.D.	8	1	0	269	641	25·25 191
D Coventry (Keresley Grange)	Miss H. Rotherham	5	0	10	413	724	28·50 226
2.—THAMES—Windrush & c. 2 sq. mi.							
3.—THAMES—Cherwell. 15 sq. mi.							
D Farnborough	Miss C. A. Prater	5	1	0	515	748	29·44 191
4.—TRENT—Right Bank Tributaries. 322 sq. mi.							
D Hockley Heath (Packwood)	E. S. Fry, Esq.	5	1	2	400	734	28·90 171
D Solihull (Marsh Cottage)	Lieut. E. P. Currall	5	1	0	420	606	23·85 170
D Hampton-in-Arden (H'ptn Man.)	Mr. W. R. Cooper	8	0	7	345	690	27·16 208
D Selly Oak (Bournville)	Messrs. Cadbury Bros. Ltd.	5	1	0	434	716	28·21 193
Selly Oak (Lodge Hill Cem't'y)	Mr. W. Garden	5	1	2	540	745	29·33 166
D Selly Oak (South Hill)	W. Littleboy, Esq.	5	0	9	470	698	27·49 180
Moseley (Prospect Road)	Rev. F. Oscar Lane	5	1	0	550	678	26·70 ..

DIVISION VI.—WEST MIDLAND COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.				Depth of Rain.		Days with ·01 in. or more
		Diam.	Height Above Ground Sea Level			1918		
WARWICKSHIRE—(con.)		in.	ft.	in.	feet	mm.	inches	
4.—TRENT—Right Bank Tributaries—(con.)								
Moseley (Highfield Road)	J. Newland Brown, Esq.	8	1	9	480	738	29·05	200
D Moseley (Oxford Road)	G. F. Lyndon, Esq. . . .	5	1	0	506	736	28·97	200
D Birmingham (Sparkhill)	D. H. Owen, Esq.	5	1	0	426	700	27·56	197
D Birmingham (Edgbaston)	A. J. Kelley, Esq.	8	1	6	515	682	26·83	184
D Birmgm (Edgbaston, Highfld Rd)	R. Priestman, Esq.	5	0	6	512	749	29·50	190
D Birmgm (Edgbaston, Hagley Rd)	H. E. Stilgoe, Esq., C.E.	5	0	9	612	814	32·05	191
M Birmingham (The Crescent) . . .	J. J. Gilbert, Esq.	5	7	0	480	692	27·26	..
D Birmingham (Handsworth) . . .	P. H. Budgen, Esq. . . .	5	1	0	340	706	27·81	185
D Birmingham (Handsworth Wd.)	C. N. Milner, Esq.	5	9	0	434	681	26·81	174
D Birmingham (Gravelly Hill) . . .	W. Ll. Mold, Esq.	5	3	0	470	705	27·77	182
D Birmingham (Erdington)	E. Antony Lees, Esq. . .	5	1	3	472	615	24·23	182
D Minworth	Birmingham Drainage Bd.	8	0	6	259	611	24·07	178
D Nuneaton (Chilvers Coton Vic.)	Rev. M. A. Dodds	5	0	10	283	558	21·99	166
D Whitacre (Birmingham W.W.) . .	E. Antony Lees, Esq. . .	5	1	5	269	525	20·66	192
D Sutton Coldfield (The Park) . . .	Mr. H. Harlond	5	1	0	371	640	25·18	171

DIVISION VII.—NORTH MIDLAND COUNTIES.

LEICESTERSHIRE. (Area, 824 sq. mi).

1.—SEVERN—Upper Avon. 41 sq. mi.								
D The Reservoir [Welford]	T. W. Millner, Esq.	5	1	6	430	629	24.77	191
D Bitteswell School Gardens	M. Smith, Esq.	5	1	0	401	647	25.47	196
2.—WELLAND. 96 sq. mi.								
D Market Harborough (Rose Hill)	G. O. Nicholson, Esq.	5	1	0	350	592	23.29	171
East Langton Grange	J. W. Logan, Esq., M.P.	5	1	0	300	537	21.13	..
D Kibworth Beauchamp	E. V. Phillips, Esq.	9	2	6	390	600	23.62	166
Hallaton Hall	S. N. Bankart, Esq.	8	1	3	366	569	22.40	..
M Horninghold House <i>Snowdon g.</i>	Mr. B. Inchley	5	1	6	380	565	22.23	..
M Horninghold House <i>Float g.</i>	Mr. B. Inchley	6	2	0	380	533	21.00	..
D Knossington Rectory	Rev. G. G. Wilkinson	5	0	11	575	644	25.37	186
3.—WITHAM. 7 sq. mi.								
4.—TRENT—Right Bank Tributaries. 680 sq. mi.								
D Wistow Hall Gardens	Col. Lord Cottesloe	5	1	0	307	598	23.53	176
D Countesthorpe (Wigston Sew Fm.)	W. G. J. Clark, Esq., C.E.	8	0	9	257	516	20.31	190
D Blaby (Whetstone Road)	G. F. Shoults, Esq.	5	0	6	239	579	22.80	170
D Leicester	Theodore B. Ellis, Esq.	5	0	6	315	547	21.54	174
D Leicester (Town Hall Square)	E. G. Mawbey, Esq., C.E.	5	0	6	211	585	23.02	197
D Leicester (Town Hall Square) (R)	E. G. Mawbey, Esq., C.E.	7	2	0	213	585	23.04	196
D Market Bosworth (Osbaston Hall)	Sir Thomas Cope, Bart.	8	1	0	393	627	24.70	230
D Desford (Industrial School)	C. Oxley, Esq.	5	1	0	370	627	24.67	174
Humberstone Asylum	S. C. Leak, Esq.	8	1	0	266	623	24.52	190
D Leicester (Gilroes Cemetery)	E. G. Mawbey, Esq., C.E.	5	1	0	285	634	24.96	199
D Thornton Reservoir	G. T. Edwards, Esq., C.E.	8	1	2	371	660	25.98	174
D Cropstone (Bradgate Res.)	G. T. Edwards, Esq., C.E.	8	1	0	246	661	26.01	187
Barkby Hall	Victor R. Pochin, Esq.	5	0	6	217	614	24.18	180
D Swithland (The Brand)	G. T. Edwards, Esq., C.E.	8	1	0	172	598	23.56	180
Ratcliffe-on-Wreake College	Rev. J. Cremonini	5	1	0	308	684	26.92	..
D Ashby-de-la-Zouch (Coleorton)	Mr. H. T. Wilson	5	2	0	540	760	29.90	181

DIVISION VII.—NORTH MIDLAND COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain. 1918	Days with ·01 in. or more	
		Diam.	Height Above Ground	Sea Level			
LEICESTERSHIRE—(con.)		in.	ft.	in.	feet	mm.	inches
4.—TRENT—Right Bank Tributaries—(con.)							
D Barrow-upon-Soar (Strangcliffe)	G. Fellows, Esq. ....	..	..		220	508	20·02 171
D Barrow-upon-Soar (The Mount)	Mrs. C. Stuart Thomson	5	1	6	..	545	21·47 167
D Melton Mowbray	Gerald Walsh, Esq.	5	3	0	345	528	20·77 161
D Charnwood For. (Blackbrk. Res)	A. H. Walker, Esq., C.E.	8	1	0	367	641	25·23 191
D Loughborough (Nan Pantan Res)	A. H. Walker, Esq., C.E.	8	1	0	269	651	25·62 188
Loughborough (The Widenings)	Adrian Young, Esq. ..	5	0	7	197	532	20·96 185
D Loughborough (Sewage Farm)	A. H. Walker, Esq., C.E.	8	1	0	134	524	20·62 162
D Burton-on-the-Wolds (Burton H.)	Lord Ernest St. Maur...	5	1	0	270	563	22·16 184
D Prestwold Hall	E. H. Packe, Esq.	8	1	0	209	559	22·00 188
D Croxton Kerrial	C. J. Prowse, Esq.	5	1	0	480	613	24·12 184
Belvoir Castle Gardens	Mr. D. Gibson, <i>per</i> M.O.	8	1	0	260	563	22·16 175
RUTLAND. (Area, 152 sq. mi.)							
1.—WELLAND. 125 sq. mi.							
D Uppingham (Ridlington)	N. W. Wortley, Esq. ..	5	4	7	527	613	24·13 176
D Oakham (Barley Thorpe Road)	Rev. Paul Shipley	5	1	0	350	643	25·32 192
Great Casterton (Walk Farm)	H. Goodyear, Esq.	5	1	8	330	613	24·14 ..
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. Fovargne	5	3	6	10	616	24·24 140
2.—WELLAND 341 sq. mi.							
Stamford (St. George's Square)	T. Booth, Esq.	5	4	0	88	527	20·74 147
Crowland (Bank House)	W. J. Hardy, Esq.	5	6	0	10	599	23·59 ..
D Market Deeping (Wilsthorpe)	G. Nicholls, Esq.	8	3	10	55	483	19·01 161
Holywell Hall	Col. C. Birch Reynardson	5	0	6	190	704	27·73 167
Bourne (Council School)	J. Langsford, Esq.	5	1	0	23	588	23·16 ..
D Bourne (Guthram)	H. Hackford, Esq.	8	1	6	19	529	20·82 160
D Spalding (Pode Hole)	H. Bain, Esq.	8	1	3	13	672	26·46 214
D Dowsby (The Cottage)	Miss Burt	5	1	5	14	666	26·24 166
3.—WITHAM & C. 1085 sq. mi.							
D Stainby Rectory	Rev. W. L. de B. Thorold ..	4	0	9	496	552	21·74 146
Stroxton Rectory	Rev. S. C. Wood	5	0	10	350	567	22·31 ..
D Little Ponton Rectory	Rev. P. R. Worsley ...	5	1	0	250	632	24·90 209
D Denton Manor	Sir C. G. E. Welby, Bt., C.B.	5	3	0	310	544	21·41 219
D Grantham (Saltersford)	H. Preston, Esq.	5	0	6	188	542	21·32 158
D Grantham (Guildhall)	J. H. Drew, Esq., C.E. ...	5	17	0	206	499	19·66 156
D Boston (Black Sluice, Skirbeck)	H. Hackford, Esq.	8	1	3	11	634	24·97 200
D Boston (Sleaford Road)	J. Shaw, Esq.	5	1	2	9	590	23·24 167
D Boston (Grand Sluice)	J. H. Johnson, Esq., C.E. ...	8	8	0	18	593	23·35 180
Boston (Bargate End)	A. O. Scrivener, Esq.	8	1	0	9	607	23·89 171
D Carlton Scroop Hall	Capt. J. H. W. Rennie ..	5	1	0	175	669	26·35 186
D Sleaford (Kesteven County Asy.)	Dr. J. A. Ewan	5	0	9	100	551	21·68 181
D Sleaford (West Lea House)	Vernon B. Longhurst Esq.	5	1	0	62	542	21·33 184
D Sleaford (Rauceby Hall)	A. Willson, Esq.	5	1	0	125	593	23·33 194
Claypole Rectory	Rev. H. W. Bathurst ..	8	2	0	70	520	20·47 ..
D Fulbeck Hall	Lt.-Col. W. V. R. Fane ..	5	0	8	180	640	25·20 229
D Cranwell	The Air Ministry	8	0	9	237	563	22·17 165

DIVISION VII.—NORTH MIDLAND COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.				Depth of Rain.		Days with ≥ 0.1 in. or more
		Diam.	Height Above		Ground Sea Level	1918		
LINCOLNSHIRE—(con.)		in.	ft.	in.	feet	mm.	inches	
3.—WITHAM & C—(con.)								
New Leake (Lade Bank Engines)	J. H. Johnson, Esq., C.E.	8	1	0	10	534	21.01	..
D Carrington Grange	Mr. T. J. Ward	5	6	0	15	586	23.06	159
Digby Manor	Pereira F. Brown, Esq.	5	1	0	47	588	23.16	..
Wellington	Miss A. S. Morley	5	1	0	..	521	20.52	171
Navenby Rectory	Mr. J. Thompson	5	1	0	218	569	22.40	155
D Carlton-le-Moorland	J. Brocklebank, Esq.	5	1	2	49	535	21.07	161
Mareham-le-Fen	Mrs. G. L. Kime, per M.O.	5	3	0	11	549	21.63	175
Revesby Reservoir	J. Shaw, Esq.	5	2	0	135	590	23.22	..
D Woodhall Spa (Galm House)	J. Collins, Esq.	5	1	6	72	542	21.33	202
D Spilsby (Hagnaby Priory)	Miss Pocklington	8	1	8	47	678	26.70	178
D Bardney Railway Station	A. Burridge, Esq.	8	7	6	25	470	18.52?	150
D Horncastle	H. R. Maynard, Esq.	5	1	6	110	586	23.06	187
Lincoln (Boultham Pump Stn.)	C. Horobin, Esq., C.E.	5	1	0	19	523	20.60	..
Lincoln (Skellingthorpe Hall)	A. H. B. Coupland, Esq.	5	1	0	40	566	22.30	148
Lincoln (Station)	Great Central Rly. Co.*	9	3	6	26	530	20.88	167
D Lincoln (Sessions House)	Arthur Smith, Esq.	5	1	0	59	536	21.12	169
D Lincoln (D'Isney Place)	A. H. Leslie Melville, Esq.	4	1	0	215	575	22.65	179
D Lincoln (Cottesford Place)	F. A. Peacock, Esq.	6	0	9	224	605	23.81	182
D Hackthorn Hall	E. W. Cracroft, Esq.	5	4	6	105	586	23.05	187
Willingham-by-Stow	R. C. Bacon, Esq.	8	2	0	70	623	24.53	178
Springthorpe Rectory	Rev. B. Davies	5	1	0	75	564	22.19	144
4.—GREAT EAU & C. 443 sq. mi.								
D Wainfleet (Bridge House)	G. Booth Walker, Esq.	5	1	0	17	657	25.87	185
Skegness (Estate Offices)	R. H. Jenkins, Esq. per MO	8	1	0	13	577	22.72	183
D East Keal Rectory	Rev. R. H. Simpson	5	0	7	180	582	22.90	204
D Spilsby (Ashby Road)	J. Jarvis Rainey	5	1	0	160	618	24.33	177
D Hagworthingham	Mr. R. Wright	5	1	1	252	714	28.11	187
Alford (Finsbery Street)	Mr. E. Hodgson	5	1	0	35	507	19.97?	168
D Mablethorpe (Trusthorpe Hall)	I. N. Woodiwiss, Esq.	8	1	3	10	685	26.96	190
D Louth (Westgate)	Rev. W. E. Yates	5	0	9	120	662	26.07	169
S. Elkington (Elkington Hall)	Countess of Wilton	5	1	9	234	650	25.60	155
D Kirmond	C. Fieldsend, Esq.	5	1	2	309	668	26.31	205
D Grainsby Hall	Mr. J. Butters	5	1	1	75	609	23.98	181
5.—HUMBER—Right Bank Tributaries. 428 sq. mi.								
Market Rasen	Great Central Rly. Co.	9	3	6	100	532	20.96	173
Brigg Station	Great Central Rly. Co.	9	3	6	16	558	21.97	163
Brigg (Grammar School)	H. E. Bryant, Esq.	5	1	0	32	644	25.34	..
D Brigg	A. Atkinson, Esq., C.E.	8	1	2	11	695	27.37	174
Riby (Riby Grove)	Yorkshire Post	..	..	..	100	651	25.62	..
D Grimsby (Abbey Road)	W. J. Wood, Esq. C.E.	5	3	0	23	543	21.39	144
Grimsby	Great Central Rly. Co.	9	15	0	42	432	16.99	..
Barnetby	Great Central Rly. Co.	9	3	6	51	601	23.65	153
D Brocklesby Park	Mr. F. C. Stainsby	5	2	0	108	691	27.20	164
D Burton-on-Stather (Normanby)	A. G. Wilkes, Esq.	5	0	10	185	675	26.58	172
D Thornton Curtis Vicarage	Rev. C. B. Goodacre	8	1	4	66	608	23.95	191
D Horkstow	E. J. Turton, Esq.	5	0	10	75	582	22.90	167
Ferriby Sluice	A. Atkinson, Esq., C.E.	5	1	0	18	593	23.36	178
New Holland	Great Central Rly. Co.	9	3	6	18	614	24.17	194

* Kept for the Canal Department of the Great Central Railway Company Returns supplied by T. Chappell, Esq.

DIVISION VII.—NORTH MIDLAND COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Diam.	Rain Gauge.		Depth of Rain. 1918	Days with ·01 in. or more		
			Height Above Ground	Sea Level				
LINCOLNSHIRE—(con.)			in.	ft. in.	feet	mm.	inches	
6.—TRENT—Right Bank Tributaries. 172 sq. mi.								
Swinderby (Ling Moor)	Cecil H. Wray, Esq.	5	0	9	50	615	24·21	168
D Lincoln (Doddington Hall)	Mrs. Jarvis	8	1	2	92	641	25·25	183
Gate Burton Hall	J. D. Sandars, Esq.	5	2	0	97	588	23·16	..
Gainsborough	Great Central Rly. Co.	9	..		76	537	21·14	151
D Burton-on-Stather Vicarage	Rev. Canon F.A. Jarvis	5	1	6	212	671	26·43	184
7.—TRENT—Left Bank Tributaries. 77 sq. mi.								
Wroot (S. Level Pump Station)	Mr. F. S. Trafford	10	4	0	13	574	22·62	..
D Althorpe Rectory	Rev. Allan Ellison	5	1	0	6	686	27·00	186
Crowle (N. Level Pump. Station)	Mr. H. G. Trafford	5	2	6	10	604	23·77	..
Keadby	Great Central Rly. Co.	9	3	6	17	600	23·61	145
NOTTINGHAMSHIRE. (Area, 843 sq. mi.) ..								
1.—WITHAM. 10 sq. mi.								
2.—TRENT—Right Bank Tributaries. 218 sq. mi.								
Kingston (Midland Agric. Coll.)	P. W. Bailey, Esq., <i>per</i> M.O.	5	1	0	125	482	18·98	165
D Plumtree (Normanton-on-Wolds)	T. A. Hill, Esq.	8	1	0	170	528	20·79	188
D Nottingham (Wilford Hill Res.)	F. W. Davies, Esq.	8	0	11	296	545	21·46	192
Cropwell Bishop (Cropwell Grove)	H. Smith, Esq.	5	1	1	160	522	20·54	..
Bingham (Whatton Manor)	Col. M. H. Hall	5	3	0	104	539	21·23	167
D Newark Castle Gardens	Mr. G. W. Chilton	5	0	8	63	519	20·44	165
D North Collingham (Markham Ho.)	The Misses Turton	5	1	0	38	594	23·37	190
3.—TRENT—Derwent. 2 sq. mi.								
4.—TRENT—Erewash. 42 sq. mi.								
D Nottingham (Strelley)	T. L. K. Edge, Esq.	8	1	0	396	634	24·96	207
D Nottingham (Strelley Hall)	T. L. K. Edge, Esq.	5	1	0	378	604	23·78	193
M Nottingham (Strelley Hall)	T. L. K. Edge, Esq.	5	1	0	379	617	24·30	..
D Bulwell (Watnall Reservoir)	F. W. Davies, Esq.	8	0	11	472	743	29·25	239
D Eastwood Waterworks	F. W. Davies, Esq.	8	1	2	244	678	26·68	164
D Eastwood Hall	Messrs Barber Walker & Co.	5	1	0	218	853	33·60	177
D Eastwood (Moorgreen Res.)	Great Northern Ry. Co.	5	6	0	301	651	25·63	180
Annesley (Selston W.W.)	S. Maylan, Esq.	5	1	0	475	588	23·17	168
5.—TRENT—Left Bank Tributaries. 569 sq. mi.								
D Beeston (Chilwell Road)	W. Norbury, Esq.	5	1	0	110	589	23·20	176
Nottingham (Trent Lane)	(R) A. Brown, Esq., C.E.	8	0	10	85	548	21·59	178
D Nottingham (The Castle)	A. Brown, Esq., C.E.	8	1	2	192	591	23·28	201
Nottingham (The Castle)	A. Brown, Esq., C.E.	8	76	0	268	544	21·42	172
D Nottingham (Carisbrooke House)	W. Bradshaw, Esq.	5	0	6	247	606	23·86	177
Nottingham (Stoke Bardolph)	A. Brown, Esq., C.E.	8	1	0	66	682	26·86	198
D Nottingham (Mapperley Hill)	E. Powell, Esq.	8	1	0	400	601	23·65	185
Bagthorpe (Isolation Hospital)	P. Boobbyer, Esq., M.D.	8	2	0	189	558	21·98	174
D Nottingham (Basford W.W.)	F. W. Davies, Esq.	8	1	0	169	574	22·60	167
D Burton Joyce Water Works	F. W. Davies, Esq.	8	0	9	64	818	32·22	191
Bulcote (Corporation Farm)	A. Brown, Esq., C.E.	10	1	3	65	657	25·86	192
Lowdham (Chilwell Nurseries)	Mr. J. D. Pearson	5	1	7	90	533	20·99	..
D Bulwell (Bestwood W. W.)	F. W. Davies, Esq.	8	1	2	317	597	23·52	169
D Daybrook (Red Hill Reservoir)	F. W. Davies, Esq.	8	0	11	407	647	25·47	206
D Daybrook (Ramsdale Hill Res.)	F. W. Davies, Esq.	8	0	10	495	645	25·38	213
Bulwell Hall Park	A. Brown, Esq., C.E.	8	1	0	252	660	26·00	187
Hucknall (Forge Mills)	J. D. Walker, Esq.	5	4	3	200	590	23·22	..
D Papplewick (Water Works)	F. W. Davies, Esq.	8	0	10	317	662	26·08	207

DIVISION VII.—NORTH MIDLAND COUNTIES—(*continued*).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain.		Days with 0.1 in. or more
		Diam.	Height Above Ground	Sea Level	1918		
NOTTINGHAMSHIRE—(con.)		in.	ft.	in.	feet	mm.	inches
5.—TRENT—Left Bank Tributaries—(con.)							
D Southwell (Elmfield)	Dr. H. Handford	5	1	0	132	582	22.90 183
M Southwell (Elmfield)	Dr. H. Handford	5	1	0	132	566	22.27 ..
D Southwell (Westgate)	E. M. Singleton, Esq.	5	1	0	127	576	22.68 179
D Farnsfield	Dr. C. Wills	5	1	0	210	626	24.63 168
Sutton-in-Ashfield W.W.	Messrs. G. & F.W. Hodson	5	1	1	462	670	26.37 ..
D Sutton-in-Ashfield (Sewage Wks)	F. J. Grierson, Esq.	5	1	0	453	698	27.46 194
D Mansfield (Rainworth W.W.)	Messrs. G. & F.W. Hodson	5	1	0	360	684	26.95 172
D Mansfield (High Oakham)	P. J. Shacklock, Esq.	5	1	6	425	806	31.73 209
D Mansfield (West Bank)	W. Pickard, Esq.	8	1	0	405	673	26.51 200
Mansfield (Debdale Hall)	Francis N. Ellis, Esq.	5	0	7	400	654	25.75 ..
D Clipstone Water Works	Messrs. G. & F.W. Hodson	5	1	0	236	632	24.89 158
D Ollerton (Boughton W.W.)	F. W. Davies, Esq.	8	0	7	141	561	22.08 180
D Ollerton (Thoresby Gardens)	Mr. A. Simmons	8	0	9	125	727	28.63 169
Elkesley Pumping Station	C. Horobin, Esq., C.E.	5	1	0	118	582	22.93 199
D Rampton Manor	Sir C. E. Ellis, K.C.B.	6	1	3	26	651	25.63 170
D Worksop (Carlton Road)	J. Edeson, Esq.	5	1	1	154	629	24.75 177
Worksop	Great Central Rly. Co.	9	3	6	127	580	22.85 ..
D Worksop (Osberton Gardens)	Mr. E. Hill	5	3	6	70	597	23.51 184
Retford	Great Central Rly. Co.	9	3	6	52	526	20.70 164
D Retford (Grammar School)	G. R. Davies, Esq.	8	0	11	53	567	22.32 192
D Retford (Morton Hall)	W. H. Mason, Esq.	5	1	0	140	562	22.13 165
D Retford (Sewage Disposal Works)	J. D. Kennedy, Esq.	5	1	0	74	635	25.01 206
D Sturton-le-Steeple	S. Ingham, Esq.	5	1	6	40	558	21.97 155
Worksop (Gateford Hill)	H. V. Machin, Esq.	5	1	2	190	583	22.96 ..
D Worksop (Wigthorpe Hill)	R. C. Ramsden, Esq.	5	1	0	100	600	23.64 166
D Worksop (Hodsock Priory)	Lt.-Col. H. Mellish, C.B.	8	1	0	56	586	23.07 179
M Worksop (Hodsock Priory)	Lt.-Col. H. Mellish, C.B.	5	1	0	56	579	22.80 ..
Worksop (Hodsock Priory)	(R) Lt.-Col. H. Mellish, C.B.	11	1	6	56	581	22.88 178
D Scrooby	Mr. J. Mallender	5	1	0	44	627	24.68 194
D The Gardens [Bawtry Hall]	Mr. F. E. Hogbin	5	1	0	31	608	23.95 148
Stockwith	Great Central Rly. Co.	9	3	6	21	570	22.45 169
D Bawtry (Hesley Hall)	B. I. Whitaker, Esq.	8	0	6	61	580	22.84 180
6.—OUSE—Don. 2 sq. mi.							
DERBYSHIRE. (Area, 1029 sq. mi.)							
1.—MERSEY, UPPER. 93 sq. mi.							
Comb's Reservoir	Great Central Rly. Co.	9	3	6	710	1100	43.32 223
Chapel-en-le-Frith	Great Central Rly. Co.	9	3	6	965	1061	41.78 211
D Whaley Bridge (Mosley Hall)	S. Arrowsmith, Esq.	5	1	0	760	1262	49.67 225
Mellor (Manor House)	W. Jowett, Esq.	5	1	0	544	988	38.91 ..
D Glossop W. W. (Swineshaw)	Mr. J. Garner	12	3	0	733	1252	49.28 214
Woodhead Station	Great Central Rly. Co.	9	3	6	878	1414	55.67 217
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	652	25.68 185
D Stanton-by-Bridge W.W.	F. Worrall, Esq., C.E.	8	1	2	144	622	24.47 158
4.—TRENT—Dove. 156 sq. mi.							
D Snelston Hall	H. Stanton, Esq.	5	0	9	490	871	34.30 179
Ashbourne Water Works	E. Wright, Esq.	5	1	0	582	932	36.71 173

DIVISION VII.—NORTH MIDLAND COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.		Depth of Rain. 1918	Days with ·01 in. or more	
		Diam.	Height Above Ground Sea Level			
DERBYSHIRE—(con.)		in.	ft. in.	feet	mm.	inches
5.—TRENT—Left Bank Tributaries 84 sq. mi.						
Findern (The Longlands)	Mrs. B. W. Spilsbury	5	0	9 186	603	23·75 173
D Etwall (Blakeley Lodge)	Mr. R. Giles	5	1	0 190	676	26·60 155
D Etwall (Sewage Farm)	Mr. B. Hydes	5	13	0 201	597	23·49 170
D Mickleover (County Asylum)	M. L. Rowan, Esq., M.D.	5	3	0 300	670	26·38 177
D Mickleover Manor	Mr. J. Campbell	5	2	0 280	757	29·80 186
Littleover (The Knoll)	W. B. Robotham, Esq.	5	1	0 315	702	27·64 193
Littleover (Old Hall)	E. McInnes, Esq.	5	2	6 346	728	28·68 198
6.—TRENT—Derwent. 428 sq. mi.						
D Spondon (Derby Sewage Wks.)	J. Ward, Esq., C.E.	5	1	3 135	654	25·76 192
D Spondon (The Homestead)	Miss D. Fowler	5	2	6 250	612	24·11 175
D Derby (Wild Street)	Messrs. J. Davis & Son	5	1	0 174	707	27·85 193
D Derby (Midland Railway)	J. Sayers, Esq.	5	1	5 156	663	26·12 185
D Derby (Royal Infirmary)	W. Banks, Esq.	5	1	0 195	727	28·61 221
D Derby (The Arboretum)	J. Ward, Esq., C.E.	8	1	0 196	722	28·44 185
Kirk Langley (Langley Hall)	G. W. Peach, Esq.	5	1	10 396	786	30·94 197
D Duffield (Castle Hill House)	Messrs. J. Davis & Son . . . . .	..	..	..	770	30·33 178
D Duffield (Kirkstyles)	WB Worthington Esq C.E.	5	1	0 235	753	29·64 169
D Belper (Fernslope)	F. J. Jackson, Esq.	5	1	6 356	787	30·98 184
Belper (Herbert Strutt School)	W. W. Tunncliffe Esq.	8	1	0 222	849	33·43 201
D Belper (Quarry Bank)	J. Hunter, Esq., C.E.	5	0	8 281	770	30·30 185
Ambergate Reservoir	No. 61 S. B. Winser, Esq., C.E.	5	1	0 700	830	32·67 169
D Wirksworth (Manor House)	T. Atkinson, Esq.	5	1	0 498	966	38·02 191
Alderwasley Parsonage	Rev. C. E. B. Deacon	5	1	0 540	936	36·85 201
Matlock Bath (Lower Tower)	Miss E. Chadwick	5	1	1 500	904	35·60 ..
D Matlock (The Gables)	Mrs. R. Wildgoose	5	1	0 450	888	34·97 196
Darley Dale (Whitworth Inst.)	E. Evans, Esq.	5	1	6 361	764	30·09 ..
Darley Hall	A. Clay, Esq.	5	1	0 400	818	32·20 197
D Clay Cross (Press Reservoirs)	Gilbert Frith, Esq., C.E.	8	1	0 810	848	33·37 176
D Bakewell (Catcliff)	Dr. T. Fentem	12	3	1 411	998	39·29 180
D Chatsworth Gardens	Mr. F. Jennings	5	1	0 436	786	30·93 207
D Buxton (Portobello Bar)	F. Langley, Esq., C.E.	8	1	0 1600	1685	66·35 252
D Buxton (Stanley Moor)	F. Langley, Esq., C.E.	8	1	0 1340	1626	64·02 249
D Buxton (Burbage Edge)	F. Langley, Esq., C.E.	8	1	0 1400	1647	64·83 250
D Buxton (Devonshire Hospital)	W. Pilkington, Esq.	5	1	0 988	1342	52·85 231
D Holmesfield (Barbrook Res.)	Gilbert Frith, Esq., C.E.	8	1	0 1080	781	30·76 210
Froggatt Edge (Stoke Flat Filtrs)	J. Gratton Bown, Esq.	5	1	0 960	1035	40·76 ..
D Froggatt Edge (Moorlands)	Rev. W. Vale Bagshawe	5	1	0 530	975	38·37 208
D Hope (Killhill Bridge)	No. 56 S. B. Winser, Esq., C.E.	5	1	0 555	1199	47·20 197
D Bamford (Engineer's Office)	60 S. B. Winser, Esq., C.E.	8	2	0 510	1073	42·26 245
Bamford (Yorkshire Br. Weir)	59 S. B. Winser, Esq., C.E.	5	1	0 540	1047	41·22 ..
Bamford Filters	No. 70 S. B. Winser, Esq., C.E.	8	1	0 656	1064	41·88 237
Derwent Vicarage	No. 67 S. B. Winser, Esq., C.E.	8	1	0 675	1274	50·16 224
Derwent Dam	No. 26 S. B. Winser, Esq., C.E.	8	1	0 790	1199	47·19 213
Derwent (Lockerbrook Plant.)	68 S. B. Winser, Esq., C.E.	5	1	0 755	1399	55·07 ..
Woodland Dale (Woodlands, S.)	48 S. B. Winser, Esq., C.E.	5	1	0 1044	1304	51·34 ..
Woodland Dale (Woodlands, N)	47 S. B. Winser, Esq., C.E.	5	1	0 1063	1494	58·81 ..
Hayfield (Ashop Head)	No. 43 S. B. Winser, Esq., C.E.	5	1	0 1650	1440	56·70 ..
Derwent Dale (Shire Owlers)	69 S. B. Winser, Esq., C.E.	5	1	0 825	1160	45·69 ..
Derwent Dale (Birchinlee)	No. 23 S. B. Winser, Esq., C.E.	8	1	0 870	1405	55·32 239
Westend Bridge	No. 66 S. B. Winser, Esq., C.E.	5	1	0 878	1450	57·07 ..

DIVISION VII.—NORTH MIDLAND COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Diam.	Rain Gauge.		Depth of Rain. 1918	Days with ·01 in. or more		
			Height Above Ground	Sea Level				
DERBYSHIRE—(con.)			in.	ft. in.	feet	mm.	inches	
6.—TRENT—Derwent—(con.)								
Lady Clough Moor	No. 41 S. B. Winsor, Esq., C.E.	5	1	0	1720	1377	54·20	..
Coldharbour Moor (Summit) . . .	39 S. B. Winsor, Esq., C.E.	5	1	0	1670	1460	57·50	..
Derwent Dale (Howden Dam) . .	17 S. B. Winsor, Esq., C.E.	8	1	0	829	1384	54·50	241
Derwent Dale (Ridge Farm) . .	13 S. B. Winsor, Esq., C.E.	8	1	0	1175	1167	45·94	..
Alport Moor (Glethering Clo'gh) .	40 S. B. Winsor, Esq., C.E.	5	1	0	1640	1252	49·30	..
Westend Moor (Blacklow Cote) .	15 S. B. Winsor, Esq., C.E.	5	1	0	970	1456	57·31	..
Westend Moor	No. 10 S. B. Winsor, Esq., C.E.	5	1	0	1560	1469	57·85	..
Alport Moor	No. 38 S. B. Winsor, Esq., C.E.	5	1	0	1790	1402	55·20	..
Broadhead Clough	No. 63 S. B. Winsor, Esq., C.E.	5	1	0	1005	1518	59·76	..
Derwent Dale (Slippery Stones) .	62 S. B. Winsor, Esq., C.E.	5	1	0	908	1424	56·05	..
Ridgewalk Moor	No. 9 S. B. Winsor, Esq., C.E.	5	1	0	1650	1370	53·95	..
7.—TRENT—Erewash. 50 sq. mi.								
D Trowell (Ilkeston Sew. Wks.) (R)	H. J. Kilford, Esq., C.E.	6	1	11	134	553	21·76	157
D Codnor (Cross Hill)	A. F. Pine, Esq.	5	1	0	372	725	28·56	172
D Codnor Park	Midland Railway Co. . . .	5	1	0	243	741	29·16	216
8.—OUSE—Don. 148 sq. mi.								
Hardwick Hall	Mr. E. Wilson	8	1	6	594	828	32·62	197
Grassmoor Colliery	Mr. J. Norman	5	19	10	370	508	19·99	..
D Chesterfield (Gas Works)	Chesterfield Water Board	5	1	0	279	618	24·33	175
Chesterfield	Great Central Rly. Co. . .	9	3	6	250	634	24·96	172
D Chesterfield (Sewage Works) . .	Mr. W. Tomlinson	5	2	0	222	627	24·70	161
D Chesterfield (Linacre Res.) . . .	Chesterfield Water Board	8	1	0	460	819	32·24	192
D Chesterfield (Linacre Res.) . . .	Chesterfield Water Board	5	1	0	490	755	29·74	192
Chesterfield (Tapton Grove) . . .	Mr. W. R. Bloxham	5	4	3	400	620	24·40	..
D Totley Hall	W. A. Milner, Esq.	5	1	0	700	939	36·98	208
D Eckington (Mosbrough C.E. Sch.)	W. H. Holmes, Esq.	5	1	0	330	709	27·93	166
Killamarsh (Norwood)	Great Central Rly. Co. . .	9	3	6	226	626	24·65	183

DIVISION VIII.—NORTH WESTERN COUNTIES.

CHESHIRE. (Area, 1027 sq. mi.)

1.—MERSEY, UPPER. 269 sq. mi.								
Macclesfield (West Park)	Mr. S. H. Moss, <i>per</i> M.O. . .	5	1	0	501	982	38·66	190
Macclesfield	Great Central Rly. Co. . .	9	3	6	539	779	30·67	215
D Macclesfield (Swanscoe Park) . .	T. C. Horsfall, Esq.	5	1	0	676	1016	40·01	228
D Bollington Cross (Turner Heath)	Mr. C. Brown	5	1	6	500	994	39·13	192
D Wilmslow (Parkside)	J. H. Neave, Esq.	8	1	0	255	921	36·26	220
D Wilmslow (Dean Row)	J. H. Cooke, Esq.	5	1	0	292	998	39·29	235
D Kettleshulme (Glebe House) . .	A. Y. Barker, Esq.	5	1	6	850	1184	46·63	206
Whaley Bridge	Great Central Rly. Co. . .	9	3	6	602	1190	46·84	222
D Poynton (Waterloo)	C. F. Butterworth, Esq. . .	5	1	0	397	989	38·95	204
D Disley (Lyme Park)	T. Molyneux, Esq.	5	1	0	674	927	36·49	211
D Disley (Lyme Park)	T. Molyneux, Esq.	5	1	0	720	845	33·26	211
D Bramhall (Bramhall Lane) . . .	S. O'Dwyer, Esq.	5	1	3	250	1050	41·33	208
D Runcorn (Weston Point)	Col. J. A. Saner, C.E. . . .	8	1	4	17	765	30·13	201
D Thelwall (The Clough)	E. W. Reynolds, Esq. . . .	5	1	0	95	938	36·91	205
M Thelwall (The Clough)	E. W. Reynolds, Esq. . . .	5	1	0	95	939	36·97	..

DIVISION VIII.—NORTH WESTERN COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.				Depth of Rain. 1918	Days with ·01 in. or more		
		Diam.	Height Above Ground Sea Level						
CHESHIRE—(con.)		in.	ft.	in.	feet	mm.	inches		
1.—MERSEY, UPPER—(con.)									
	Altrincham (Norman's Place)	Miss G. A. Griffiths	5	8	0	150	1042	41·04	..
	Altrincham (Barrington House)	C. E. Newton, Esq., C.E.	8	2	6	103	938	36·95	..
	Cheadle (Adswood)	R. W. Wright, Esq.	5	0	6	186	994	39·13	..
D	Northenden (Wythenshawe Hall)	T. E. Tatton, Esq.	5	1	0	114	881	34·70	203
M	Northenden (Wythenshawe Hall)	T. E. Tatton, Esq.	8	1	6	114	886	34·88	..
	Marple Top Lock	Great Central Rly. Co.	9	3	6	523	972	38·26	191
	Godley Reservoir	Messrs. G. H. Hill & Sons	CE12	2	0	500	1137	44·76	..
	Newton	Great Central Rly. Co.	9	3	6	396	1066	41·95	210
	Mottram Station	Great Central Rly. Co.	9	3	6	452	1087	42·80	186
D	Broadbottom (Harewood Lodge)	Col. Sidebottom	5	1	0	440	1092	43·01	183
D	Dukinfield (Higher Reservoir)	G. H. Raddin, Esq., C.E.	8	1	6	495	977	38·46	214
D	Dukinfield (Lower Reservoir)	G. H. Raddin, Esq., C.E.	5	1	0	435	1098	43·25	215
	Arnfield Reservoir	Messrs. G. H. Hill & Sons	CE12	2	6	550	1247	49·08	..
	Rhodes Wood Reservoir	Messrs. G. H. Hill & Sons	CE12	1	0	520	1357	53·42	..
	Torrside Reservoir	Messrs. G. H. Hill & Sons	CE12	1	6	680	1495	58·87	..
D	Stalybridge (Market Ground Yd.)	G. H. Raddin, Esq., C.E.	5	1	0	373	1216	47·88	201
D	Stalybridge (Brushes Filter Ho.)	G. H. Raddin, Esq., C.E.	8	1	0	615	1240	48·81	204
D	Stalybridge (Brushes Filter Ho.)	R G. H. Raddin, Esq., C.E.	6	3	0	615	1183	46·56	203
	Swineshaw Moor (Lees Hill)	G. H. Raddin, Esq., C.E.	5	1	0	1168	1223	48·15?	..
	Woodhead Reservoir	Messrs. G. H. Hill & Sons	CE12	0	10	660	1487	58·54	..
2.—MERSEY—Weaver. 489 sq. mi.									
D	Baddiley (Nantwich W.W.)	The Caretaker	5	1	3	231	782	30·79	176
D	Nantwich (Dorfold Hall)	Col. J. A. Saner, C.E.	8	1	0	190	785	30·91	210
D	Nantwich (Reaseheath Hall)	Col. J. A. Saner, C.E.	8	1	0	130	719	28·30	200
D	Sandbach (Malkins Bank)	Messrs. Brunner Mond & Co	5	3	8	138	712	28·02	232
D	Congleton (Sewerage Works)	J. H. Walters, Esq., C.E.	5	1	0	248	892	35·13	193
D	Congleton (Buglawton Vicarage)	Col. J. A. Saner, C.E.	8	5	0	347	804	31·66	216
	Bosley Reservoir	Great Central Rly. Co.	9	3	6	590	891	35·09	201
	Bosley Minns	Great Central Rly., Co.	9	3	6	1210	758	29·84?	219
D	Tarporley (Tirley Garth Gdns.)	Mr. J. B. Allan	5	3	6	450	797	31·39	209
D	Middlewich	Messrs Brunner Mond & Co	5	3	10	138	761	29·96	196
	Middlewich (Bostock Hall)	Mr. A. H. Hall	5	2	0	157	790	31·11	146
	Delamere Forest (Kingswood)	J. Simpson, Esq., per M.O.	..	..	..	355	962	37·86	170
D	Chelford (Astle Hall)	Sir G. Dixon, Bart.	5	1	0	250	862	33·95	195
M	Chelford (Astle Hall)	Sir G. Dixon, Bart.	8	1	0	250	834	32·82	..
	Northwich	Great Central Rly. Co.	9	3	6	76	772	30·38	190
D	Northwich (Hunts Lock)	Col. J. A. Saner, C.E.	8	1	0	47	848	33·39	207
D	Northwich (Winnington)	Mssrs. Brunner Mond & Co	5	1	0	64	854	33·61	194
D	Northwich (Lostock Gralam)	Mssrs. Brunner Mond & Co	5	3	6	75	800	31·50	190
3.—MERSEY, LOWER & C. 142 sq. mi.									
D	Ince Hall	Mrs. Park-Yates	5	1	0	110	844	33·23	196
D	Hooton Water Works	A. J. Robinson, Esq.	5	1	0	97	838	32·99	192
D	Eastham (Mill Hey)	Roger P. Sing, Esq.	5	1	7	125	989	38·93	204
	Eastham House	J. H. Vernon, Esq.	5	1	0	100	906	35·67	209
D	Wirral W.W. (Prenton)	A. J. Robinson, Esq.	5	1	0	91	877	34·52	197
D	Rock Ferry (Elmhurst)	Miss Shepherd	8	6	0	110	956	37·64	189
	Birkenhead (Bidston Observ'y.)	W. E. Plummer, Esq.	8	1	0	189	811	31·93	200
D	Hoylake (District Council Office)	R. W. Fraser, Esq.	5	1	0	33	830	32·69	198
D	New Brighton (Marine Park)	Dr. T. W. N. Barlow	5	1	0	35	909	35·77	204

DIVISION VIII.—NORTH WESTERN COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.				Depth of Rain. 1918	Days with ·01 in. or more
		Diam.	Height Above Ground Sea Level				
		in.	ft.	in.	feet	mm.	inches
CHESHIRE—(con.)							
4.—DEE. 127 sq. mi.							
D Eaton Hall Gardens	Mr. N. F. Barnes	5	3	0	72	708	27·87 175
Eccleston	E. Wells, Esq.	5	1	1	94	688	27·08 178
D Rowton (Holly Bank)	R. J. Salmon, Esq.	5	1	5	123	808	31·81 179
D Chester (Christleton Lodge)	Mr. C. R. Heywood, junr.	5	1	0	100	731	28·77 176
D Chester (Water Works)	C. Wilfrid Bennett, Esq.	5	0	10	35	685	26·98 188
D Chester (Water Works)	C. Wilfrid Bennett, Esq.	8	2	3	85	681	26·82 187
Chester (Northgate Station)	Great Central Rly. Co.	9	3	6	84	696	27·41 154
D Puddington (Remote)	Frank S. Smith, Esq.	5	1	0	..	720	28·33 179
Capenhurst Hall	R. T. Richardson, Esq.	5	5	10	125	901	35·47 184
D Neston (Vine House)	H. F. Russell, Esq.	5	1	0	111	708	27·89 190
West Kirby (Hilbre House)	Egerton Macdona, Esq.	5	0	9	25	859	33·82 ..
M West Kirby (Hilbre Road)	R. Dempster, Esq.	5	1	0	25	809	31·86 ..
West Kirby (The Abbey Manor)	Cedric R. Boulton, Esq.	5	0	10	200	822	32·35 185
D West Kirby (St. Andrew's Ho.)	Rev. E. F. Robson	6	0	9	50	817	32·18 196
SOUTH LANCASHIRE. (Area, 687 sq. mi.)							
1.—ALT & C. 103 sq. mi.							
D Liverpool (Huyton Vicarage)	Mrs. E. M. Sanderson	5	0	11	116	987	38·86 210
D Liverpool (Knotty Ash)	W. M. Reade, Esq.	5	1	0	100	979	38·53 248
D Great Crosby (Carnegie Library)	S. Wilson, Esq.	5	1	0	34	896	35·28 203
D Blundellsands (Myra)	H. Montgomery, Esq.	5	1	0	35	880	34·63 206
D Ormskirk (Bickerstaffe Pump St.)	G. H. Abbott, Esq.	5	1	2	128	950	37·42 205
D Ormskirk (Springfield P. Stn.)	G. H. Abbott, Esq.	5	0	11	70	969	38·15 205
2.—MERSEY, LOWER. 240 sq. mi.							
Garston	H. Owens, Esq., C.E.	10	1	10	84	1119	44·07 204
D Garston (Grassendale Park)	Miss E. C. Abraham	5	1	0	35	905	35·63 192
D Aigburth (Holmfield)	Miss Maxwell	5	1	0	100	955	37·61 213
D Aigburth (Beech Lawn)	T. H. Edwards, Esq.	8	1	0	150	918	36·13 203
D Woolton (Roseleigh Gardens)	Mr. J. Stoney	8	1	0	180	1021	40·18 204
D Warrington (Howley Yard)	A. M. Ker, Esq.	10	0	10	26	971	38·23 198
Warrington (Central Station)	Great Central Rly Co.	9	3	6	59	902	35·51 178
Liverpool (Monument Place)	H. Owens, Esq., C.E.	5	1	3	126	872	34·32 194
D Liverpool (Monument Place) (R)	H. Owens, Esq., C.E.	10	4	6	129	830	32·69 193
Liverpool (Smithdown Road)	H. Owens, Esq., C.E.	10	0	9	135	988	38·88 215
Liverpool (Rathbone Road)	H. Owens, Esq., C.E.	10	1	0	199	1131	44·53 201
Liverpool (Lark Lane)	H. Owens, Esq., C.E.	10	10	8	101	1037	40·81 213
Liverpool (Newsham Park)	H. Owens, Esq., C.E.	10	1	0	140	943	37·14 206
Liverpool (Huskisson Station)	Great Central Rly. Co.	9	3	6	42	877	34·54 188
Liverpool (Breeze Lane)	H. Owens, Esq., C.E.	5	0	9	135	1041	40·99 215
St. Helen's (Eccleston)	A. W. Bradley, Esq.	8	2	9	268	1075	42·32 189
D Earlestown (Newton Cemetery)	T. E. Clough, Esq.	5	1	0	75	1082	42·60 161
D Leigh (Leesrigg)	Maj. T. Hunter, V.D., C.E.	5	1	0	71	1023	40·29 177
3.—MERSEY—Irwell. 299 sq. mi.							
D Urmston (Sew. Wks., Davyhulme)	G. F. Walter, Esq.	8	2	3	72	1015	39·95 210
D Manchester (Godlee Observ'y)	W. C. Jenkins, Esq.	8	1	3	140	1021	40·20 198
Manchester (Piccadilly)	Great Central Rly. Co.	9	40	0	194	991	39·01 204
Manchester (Fairfield)	Great Central Rly. Co.	9	6	0	312	1120	44·11 211
Manchester (Oldham Road)	Dr. J. Niven	5	1	0	191	1125	44·28 221
Manchester (Whitworth Park)	Manchester Univ. per M.O.	8	1	5	126	1004	39·53 208

DIVISION VIII.—NORTH WESTERN COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.				Depth of Rain. 1918	Days with ·01 in. or more
		Diam.	Height Above Ground Sea Level				
SOUTH LANCASHIRE—(con.)		in.	ft.	in.	feet	mm.	inches
3.—MERSEY—Irwell—(con.)							
D Ashton-und.-Lyne (Knott Hill R.)	G. H. Raddin, Esq., C.E.	8	1	3	605	1259	49·55 204
Prestwich Reservoir	Messrs. G. H. Hill & Sons CE	12	2	0	356	1103	43·43 .
D Prestwich (Heaton Park)	Bertram Meek, Esq., C.E.	8	1	0	312	1243	48·95 205
D Oldham (Alexandra Park)	Dr. J. B. Wilkinson	5	1	0	600	1262	49·67 223
Oldham (Honeywell Lane)	Great Central Rly. Co.	8	3	6	553	1271	50·03 212
Oldham (Brushes Clough) <i>old g.</i>	C. J. Batley, Esq., C.E.	5	4	0	930	1435	56·50 232
Oldham (Brushes Clough) <i>new g.</i>	C. J. Batley, Esq., C.E.	5	5	0	955	1460	57·50 231
D Bolton (Queen's Park)	T. Midgley, Esq.	5	1	0	342	1424	56·05 221
D Bolton (Heaton Reservoir)	Lewis Mitchell, Esq., C.E.	5	1	0	500	1366	53·77 231
D Bolton (Bloomfield, Heaton)	Mrs. F. Taylor	5	1	0	530	1354	53·29 263
D Bolton (Smithills Hall)	Col. R. H. Ainsworth	8	1	2	510	1538	60·57 182
Bolton (Smithills Moor)	Col. R. H. Ainsworth	8	1	2	1375	1756	69·14 .
D Bury (Parsons Lane)	R. B. Rigby, Esq.	8	9	8	316	1411	55·54 216
D Bury (Bridge Hall)	Miss Wrigley	8	1	0	..	1385	54·51 211
D New Hey (Sewage Works)	Mr. J. B. Ogden	5	1	0	514	1330	52·37 197
Milnrow (Butterworth Hall)	C. J. Batley, Esq., C.E.	5	1	0	512	1382	54·42 207
D Milnrow (Piethorne, Kitcliffe)	C. J. Batley, Esq., C.E.	5	4	6	769	1353	53·27 213
Milnrow (Piethorne, Coldgreave)	C. J. Batley, Esq., C.E.	5	4	6	894	1322	52·03 217
Milnrow (Piethorne, Norman Hill)	C. J. Batley, Esq., C.E.	5	4	6	1076	1250	49·23 217
Milnrow (Piethorne, Rooden Res)	C. J. Batley, Esq., C.E.	5	4	6	1131	1191	46·88 217
D Rochdale (Roch Mills Sew. Wks.)	H. Yarwood, Esq., C.E.	8	1	1	363	1419	55·86 227
D Rochdale (Broadfield Pk. Obsy.)	Dr. A. G. Anderson	8	0	6	472	1461	57·52 236
D Rochdale (Fieldhead Yard)	H. Yarwood, Esq., C.E.	8	12	0	484	1328	52·29 206
D Rochdale (Fieldhead Yard) (R)	H. Yarwood, Esq., C.E.	8	12	0	484	1338	52·69 205
D Rochdale (Ashworth Moor Res.)	J. S. Diggle, Esq., C.E.	5	1	2	957	1425	56·12 212
D Bury (Gin Hall)	No. 1 J. Woodhead Smith Eq CE	8	1	0	475	1454	57·26 215
D Bury (Gin Hall)	No. 2 J. Woodhead Smith Eq CE	8	1	0	475	1511	59·48 215
D Bolton (Belmont Reservoir)	Lewis Mitchell, Esq., C.E.	5	1	0	800	1837	72·34 240
D Rochdale (Hamer Pasture Res.)	F. H. Brunt, Esq.	5	1	0	760	1477	58·16 221
D Rochdale (Naden Filters)	J. S. Diggle, Esq., C.E.	5	1	8	761	1481	58·31 210
M Norden (Higher Red Lumb)	J. S. Diggle, Esq., C.E.	5	1	2	1125	1510	59·47 ..
Norden (Far Knowl)	J. S. Diggle, Esq., C.E.	5	0	10	..	1589	62·57 ..
Rochdale (Naden Dean) <i>old g.</i>	J. S. Diggle, Esq., C.E.	5	1	7	948	1270	50·02 ..
Rochdale (Naden Dean) <i>new g.</i>	J. S. Diggle, Esq., C.E.	5	1	4	948	1420	55·89 ..
M Ramsbottom (Killgate Brook)	J. S. Diggle, Esq., C.E.	5	1	0	978	1528	60·16 ..
M Ramsbottom (Cheesden Barn)	J. S. Diggle, Esq., C.E.	5	1	0	997	1492	58·76 ..
D Edenfield (Scout Moor Res.)	No. 1 J. Woodhead Smith, Eq CE	8	1	0	1275	1325	52·18 238
D Edenfield (Scout Moor Res.)	No. 2 J. Woodhead Smith, Eq CE	8	1	0	1275	1361	53·59 238
D Rochdale (Spring Mill Whitworth)	F. H. Brunt, Esq.	5	1	7	720	1693	66·67 216
D Rochdale (Cowm, Whitworth)	F. H. Brunt, Esq.	5	1	7	760	1677	66·03 210
D Entwistle Reservoir	Lewis Mitchell, Esq., C.E.	5	1	0	700	1692	66·61 224
Littleborough (Hollingworth L.)	Rochdale Canal Co.*	8	1	0	600	1136	44·72 ..
Littleborough (Windy Bank)	Rochdale Canal Co.	8	2	0	605	1254	49·35 ..
Littleborough (Canal Summit)	Rochdale Canal Co.	8	2	0	700	1192	46·93 ..
Littleborough (Chelburn)	Rochdale Canal Co.	8	2	0	800	1288	50·71 ..
Littleborough (Byron Edge Drain)	Rochdale Canal Co.	8	1	5	1250	1284	50·57 ..
Littleborough (Lenches)	Rochdale Canal Co.	8	2	0	806	1377	54·20 ..
Walsden (Calf Lee)	Rochdale Canal Co.	10	1	6	960	1142	44·97 ..
Walsden (Warland Drain)	Rochdale Canal Co.	8	1	5	1250	1136	44·74 ..
Walsden (Whiteholme Drain)	Rochdale Canal Co.	8	1	5	1250	1300	51·17 ..

* Returns supplied by W. A. M'Grath, Esq.

DIVISION VIII.—NORTH WESTERN COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain. 1918	Days with '01 in or more		
		Diam.	Height Above Ground Sea Level					
SOUTH LANCASHIRE—(con.)		in.	ft.	in.	feet	mm.	inches	
3.—MERSEY—Irwell—(con.)								
Walsden (Rishworth Drain) ...	Rochdale Canal Co. ...	8	1	5	1200	1140	44.90	..
D Haslingden (Holden Wood) No.1	J. Woodhead Smith, Esq., C.E.	8	1	0	670	1720	67.72	216
D Haslingden (Holden Wood) No.2	J. Woodhead Smith, Esq., C.E.	8	1	0	670	1712	67.38	216
D Haslingden (Calf Hey) No.1	J. Woodhead Smith, Esq., C.E.	8	1	0	800	1536	60.47	216
D Haslingden (Calf Hey) No.2	J. Woodhead Smith, Esq., C.E.	8	1	0	800	1535	60.44	216
D Newchurch-in-Rossendale Rec.	Rev. J. S. Addison	5	0	11	775	1475	58.07	215
Rawtenstall Cemetery	P. Holt, Esq., C.E.	8	1	0	572	1588	62.51	189
D Rawtenstall (Cloughbottom) No.1	J. Woodhead Smith, Esq., C.E.	8	1	0	1025	1397	55.00	210
D Rawtenstall (Cloughbottom) No.2	J. Woodhead Smith, Esq., C.E.	8	1	0	1025	1316	51.83	210
D Rawtenstall (Hapton Res.) No.1	J. Woodhead Smith, Esq., C.E.	8	1	0	930	1500	59.07	229
D Rawtenstall (Hapton Res.) No.2	J. Woodhead Smith, Esq., C.E.	8	1	0	930	1563	61.52	229
4.—MERSEY, UPPER. 45 sq. mi.								
D Didsbury (Linden Road)	L. G. King, Esq.	8	1	6	110	964	37.97	198
D Heaton Mersey [Stockport] ...	W. B. Leigh, Esq.	5	1	0	218	967	38.07	201
D Heaton Moor [Stockport]	A. A. Barnes, Esq., C.E.	5	1	0	235	1022	40.23	217
M Heaton Moor [Stockport]	A. A. Barnes, Esq., C.E.	5	1	0	235	1010	39.76	..
D Withington (Town Hall) ...	(R) O. Hellawell, Esq., C.E.	8	3	0	111	935	36.81	184
D Chorlton-cum-Hardy Sew. Works	G. F. Walter, Esq.	8	4	0	76	931	36.67	199
D Chorlton-cum-Hardy	J. H. Casartelli, Esq. ...	5	2	0	75	954	37.54	202
D Fallowfield (Platt Field Park) ..	Bertram Meek, Esq., C.E.	8	3	3	124	957	37.67	178
Denton Reservoir	Messrs. G. H. Hill & Sons	CE12	2	0	324	1006	39.61	..
Gorton Reservoir	Messrs. G. H. Hill & Sons	CE12	2	0	263	1037	40.83	..
D Ashton-u Lyne (Henrietta St Yd)	G. H. Raddin, Esq., C.E.	7	1	0	394	1215	47.84	226
Ashton-u-Lyne (Waterhouse) ..	Great Central Rly. Co. .	9	3	6	345	1132	44.56	207
D Lower Swineshaw Reservoir	G. H. Raddin, Esq., C.E.	8	1	0	886	1294	50.93	218
Swineshaw Moor	G. H. Raddin, Esq., C.E.	5	1	0	1340	1448	57.02	..
D Mossley (Manor House Yard)	G. H. Raddin, Esq., C.E.	5	1	0	636	1387	54.59	208
CENTRAL LANCASHIRE. (Area, 536 sq. mi.)								
1.—RIBBLE & C. 326 sq. mi.								
Rivington (Higher Hill)	J. R. Davidson, Esq., C.E.	3	1	4	733	1178	46.39	..
D Haslingden (Mitchells Ho. Res.)	A. J. Harrison, Esq. ...	5	1	6	990	1432	56.37	186
D Darwen (Sunnyhurst Hey Res.)	E. Marsden, Esq., C.E. .	8	1	8	915	1446	56.92	214
D Darwen (Earnsdale Reservoir)	E. Marsden, Esq., C.E. .	8	1	8	705	1454	57.24	214
D Darwen (Sewage Works)	E. Marsden, Esq., C.E. .	5	1	6	460	1491	58.71	199
D Darwen (Bold Venture Park) ..	Dr. F. G. Haworth ...	8	1	1	722	1651	64.99	226
Darwen (Hoddlesden) No.1	A. T. Gooseman, Esq., C.E.	8	1	6	680	1318	51.87	203
Darwen (Hoddlesden) No.2	A. T. Gooseman, Esq., C.E.	8	1	0	675	1361	53.57	203
Darwen (Daisy Green) No.1	A. T. Gooseman, Esq., C.E.	8	1	6	969	1295	51.00	204
Darwen (Daisy Green) No.2	A. T. Gooseman, Esq., C.E.	8	1	0	969	1343	52.89	204
Darwen (Pickup Bank) ... No.1	A. T. Gooseman, Esq., C.E.	8	1	6	720	1277	50.27	204
Darwen (Pickup Bank) .. No.2	A. T. Gooseman, Esq., C.E.	8	1	0	720	1318	51.91	204
D Brindle (Whiteholme)	Victor H. Gatty, Esq. .	5	1	8	315	1248	49.14	195
Blackburn (Guide Reservoir)	A. T. Gooseman, Esq., C.E.	8	1	6	610	1279	50.37	195
Blackburn (Witton)	A. T. Gooseman, Esq., C.E.	8	1	6	315	1533	60.35	184
Blackburn (Pumping Station) ..	A. T. Gooseman, Esq., C.E.	8	1	6	600	1355	53.33	196
Accrington (Milnshaw Park)	Mr. J. W. Terry	5	1	6	464	1303	51.30	196
D Hutton (Lancs. C.C. Hort. Stat.)	Dr. H. Lloyd Snape ..	5	1	0	82	1116	43.92	209
Higher Walton (Bannister Hall)	A. A. Gatty, Esq.	5	0	7	75	1194	47.01	..

DIVISION VIII.—NORTH WESTERN COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.		Depth of Rain. 1918	Days with ·01 in. or more			
		Diam.	Height Above Ground SeaLevel					
CENTRAL LANCASHIRE—(con.)		in.	ft.	in.	feet	mm.	inches	
1.—RIBBLE & C—(con.)								
Preston (Corporation Offices) ..	J. H. Smethurst, Esq., C.E.	8	1	2	148	1171	46·12	205
Samlesbury Sewage Works	A. T. Gooseman, Esq., C.E.	8	1	6	240	1283	50·51	185
Rishton Reservoir	Leeds & L'pool Canal Co. ..	..	..	..	467	1184	46·63	..
Causeway Side (Burnley W.W.)	S. Rawlinson, Esq.	8	2	0	1116	1213	47·76	..
Sheddin (Burnley W.W.)	S. Rawlinson, Esq.	8	2	0	960	1219	47·99	..
CantClough S. Side (Burnley WW)	S. Rawlinson, Esq.	8	2	0	900	1205	47·45	230
CantClough N. Side (Burnley WW)	S. Rawlinson, Esq.	8	2	0	900	1068	42·03	228
RamsClough Head (Burnley WW)	S. Rawlinson, Esq.	8	2	0	1260	1184	46·60	..
D Huncoat (Burnley Road Res.) ..	A. J. Harrison, Esq.	9	1	6	620	1476	58·11	203
Great Harwood (Parsonage Res.)	A. T. Gooseman Esq., C.E. ..	8	1	0	631	1270	50·02	170
D Great Harwood (Dean Clough) ..	A. J. Harrison, Esq.	12	1	6	540	1639	64·54	224
D Burnley (Queen's Park)	Dr. T. Holt	8	1	0	459	977	38·45	169
Burnley (Yorkshire Street)	S. Rawlinson, Esq.	8	30	0	420	1003	39·50	209
Burnley (Swinden) <i>Upper g.</i> ..	S. Rawlinson, Esq.	8	12	0	820	1281	50·42	236
Burnley (Swinden) <i>Lower g.</i> ..	S. Rawlinson, Esq.	8	2	0	745	1287	50·66	236
Burnley (Extwistle Moor Top) ..	S. Rawlinson, Esq.	8	2	0	1310	1278	50·31	..
D Burnley (Gawthorpe Hall)	Lord Shuttleworth	8	0	9	316	1301	51·22	204
D Burnley (Huntroyde)	N. G. Howsin, Esq.	5	1	0	423	1396	54·95	178
Alston Reservoir	J. H. Smethurst, Esq., C.E.	8	1	2	320	1294	50·93	..
D Nelson (Coldwell Res.) ...	No. 1 Smith Whitehead Esq., C.E.	8	2	0	950	1875	73·82	205
D Nelson (Coldwell Res.) ...	No. 2 Smith Whitehead Esq., C.E.	5	1	0	960	2028	79·84	205
D Nelson (Victoria Park)	Smith Whitehead Esq., C.E.	5	1	0	360	1317	51·86	210
D Stonyhurst College	late Rev. W. Sidgreaves	8	1	10	377	1498	58·99	214
M Stonyhurst College	late Rev. W. Sidgreaves	11	1	0	376	1464	57·65	..
M Knowle Green (Preston W.W.) ..	J. H. Smethurst, Esq., C.E.	8	1	2	400	1348	53·06	..
M Loud Scales (Preston W.W.) ..	J. H. Smethurst, Esq., C.E.	8	1	2	400	1332	52·43	..
M Spade Mill (Preston W.W.)	J. H. Smethurst, Esq., C.E.	8	1	2	400	1346	52·99	..
M Jeffrey Hill (Preston W.W.) ..	J. H. Smethurst, Esq., C.E.	8	1	2	900	1435	56·50	..
D Colne (The Rectory)	Rev. Dr. S. P. Duval ..	5	1	5	538	1358	53·48	219
D Colne (Cemetery Grounds) . (R)	T. H. Hartley, Esq.	8	2	11	619	1112	43·78	199
D Pendle Hill (Ogden Reservoir) ..	Smith Whitehead, Esq., C.E.	8	1	6	950	1578	62·14	175
Barrowford Reservoir	Leeds & L'pool Canal Co.	8	1	0	473	1289	50·76	..
Foulridge (Upper Reservoir) ..	Leeds & L'pool Canal Co.	8	1	0	582	1286	50·61	..
Clitheroe (Downham Hall)	R. C. Assheton, Esq. ..	10	1	6	464	1351	53·19	..
2.—RIBBLE—Douglas. 156 sq. mi.								
D Wigan WW (Billinge Higher End)	R. B. Donald, Esq.	12	3	9	375	1074	42·29	198
D Upholland Grammar School ...	C. H. Cox, Esq.	5	1	0	320	1119	44·06	220
D Wigan W.W. (Worthington) ...	R. B. Donald, Esq.	8	1	6	225	1194	46·99	209
D Horwich (Lower Rivington) ...	J. R. Davidson, Esq., C.E.	8	1	0	440	1308	51·50	221
Horwich (Lower Knoll)	J. R. Davidson, Esq., C.E.	8	1	4	742	1332	52·45	..
D Rufford Park	J. P. Maitland, Esq.	5	1	0	41	949	37·35?	180
Rivington (Brown Hill)	J. R. Davidson, Esq., C.E. ..	8	1	4	843	1342	52·83	..
D Rivington (Stoneshouse) ..	No. 1 J. R. Davidson, Esq., C.E.	8	1	4	623	1274	50·15	221
Rivington (Stoneshouse) ..	No. 2 J. R. Davidson, Esq., C.E.	8	1	4	623	1243	48·93	..
Rivington (Hurst Hill)	J. R. Davidson, Esq., C.E.	8	1	10	1029	1350	53·13	..
Rivington (Great Hill)	J. R. Davidson, Esq., C.E.	8	1	8	1240	1462	57·55	..
Rivington (Coppice Stile)	J. R. Davidson, Esq., C.E.	8	1	8	879	1172	46·13	..
Rivington (Gamekeeper's)	J. R. Davidson, Esq., C.E.	8	0	8	850	1410	55·53	..
Leyland (Worden Hall)	H. Nowell farington, Esq	5	1	0	125	1156	45·51	218
M Leyland (Worden Hall)	H. Nowell farington, Esq	5	1	0	125	1135	44·67	..

DIVISION VIII.—NORTH WESTERN COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.				Depth of Rain.		Days with ·01 in. or more
		Diam.	Height Above Ground Sea Level			1918		
CENTRAL LANCASHIRE—(con.)		in.	ft.	in.	feet	mm.	inches	
2.—RIBBLE—Douglas—(con.)								
D Bamber Bridge (Cuerden Hall)	R. A. Tatton, Esq.	5	1	0	230	1122	44·16	189
3.—COAST STREAMS. 52 sq. mi.								
D Scarisbrick (Pinfold Cottage)	Mrs. Johnson	5	1	0	69	1003	39·49	203
Birkdale (Westcliffe Road)	Percy W. Hoyle, Esq.	5	0	6	30	979	38·55	204
M Birkdale	J. Baxendell, Esq.	5	1	0	27	1004	39·54	..
D Southport (Hesketh Park)	J. Baxendell, Esq.	5	1	0	38	1016	40·01	205
D Southport (Hesketh Park)	J. Baxendell, Esq.	8	1	0	38	1022	40·23	204
D Southport (Hesketh Park) .. (R)	J. Baxendell, Esq.	11	1	5	39	1015	39·96	205
Southport (Lord Street Station)	Great Central Rly. Co.	9	3	6	21	908	35·73	182
D Southport (Forest Road)	J. H. Bonny, Esq.	5	1	6	25	973	38·32	196
4.—OUSE—Aire. 2 sq. mi.								
D Worthdale (Watersheddles Res.)	M. R. Barnett, Esq., C.E.	5	1	0	1115	1361	53·57	223
Foulridge (Canal Office)	Leeds & L'pool Canal Co.	8	1	0	497	1438	56·63	..
Foulridge (Cragg Nook Hill)	Leeds & L'pool Canal Co.	8	1	0	690	1381	54·37	..
NORTH LANCASHIRE. (Area, 609 sq. mi.)								
1.—DUDDON & C. 77 sq. mi.								
D Barrow-in-Furness (Walney I.)	The Air Ministry	8	1	0	81	1075	42·32	209
D Barrow-in-Furness (Gas Works)	F. Chadderton, Esq.	11	1	6	36	1177	46·34	197
D Barrow-in-Furness (Sewage Wks)	W. C. Persey, Esq., C.E.	5	1	0	21	1254	49·35	209
D Urswick School House	J. Dobson, Esq.	5	1	3	140	1435	56·51	205
D Bardsea School	Arthur Fox, Esq.	5	1	0	84	1556	61·26	218
D Ulpha	F. Chadderton, Esq.	11	1	6	251	2129	83·81	239
D Duddon Valley (Seathwaite Vic)	Rev. C. W. Wakefield	5	1	0	348	2109	83·02	225
2.—LEVEN & C. 135 sq. mi.								
D Cartmel (Carke)	R. Heathcote, Esq.	5	1	0	76	1389	54·67	209
D Cartmel (Holker Hall)	Lord Richard Cavendish	5	0	9	85	1476	58·12	229
D Ulverston (Poaka Beck)	F. Chadderton, Esq.	11	1	6	512	1586	62·44	219
D Cartmel (Aynsome)	J. Stewart Remington Esq.	8	2	0	132	1527	60·12	221
Rusland Hall	Mrs. Archibald	5	14	0	45	1488	58·59	224
Greenodd (Pennybridge School)	W. White, Esq.	5	1	0	118	1978	77·86	223
D Coniston (Water Park)	Miss C. Marshall	6	1	0	165	1779	70·05	218
Coniston Park	Miss C. Marshall	5	1	2	305	2445	96·27	200
D Hawkshead (Tower Bank Sawrey)	Miss Alcock-Beck	5	2	0	342	2102	82·75	228
Hawkshead School	J. Lowe Handley, Esq.	5	0	7	214	2125	83·66	..
M Hawkshead (Esthwaite Lodge)	Miss C. Brown	5	0	6	224	2258	88·91	233
M Hawkshead (Black Fell)	Miss C. Marshall	5	1	6	1055	2214	87·16	..
D Skelwith Fold [Ambleside]	Miss C. Marshall	5	1	0	333	2501	98·45	229
M Skelwith Fold [Ambleside]	Miss C. Marshall	5	1	0	333	2481	97·69	..
3.—KENT & C. 45 sq. mi.								
D Heysham Harbour	Midland Railway Co.	5	1	6	28	1213	47·75	204
D Heysham House	late Miss Tomlinson	5	1	6	80	1432	56·36	252
Morecambe	Mr. T. B. Lamb, per M.O.	8	1	0	24	1143	45·00	205
Bolton-le-Sands Vicarage	late Rev. A. R. Tomlinson	5	1	2	80	1228	48·35	..
D Carnforth (Over Kellet)	W. Farrer, Esq.	8	1	6	174	1278	50·30	229
D Yealand Conyers (Beechfield)	Mrs. Roper	5	1	0	250	1075	42·31	191
D Yealand Conyers (Morecambe Lo)	J. Rawlinson Ford, Esq.	5	1	0	278	1493	58·78	230
D Silverdale (Bleasdale House)	Robert S. Rainbeck Esq.	8	1	0	160	1355	53·34	197
Grange-over-Sands (Eden Mount)	Miss K. F. Brothers	5	1	6	280	1181	46·49	178

DIVISION VIII.—NORTH WESTERN COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.				Depth of Rain. 1918	Days with 0.1 in. or more	
		Diam.	Height Above Ground Sea Level					
NORTH LANCASHIRE—(con.)		in.	ft.	in.	feet	mm.	inches	
3.—KENT & C—(con.)								
D Grange-over-Sands (Nutwood)	Miss S. M. Arkwright	5	1	0	..	1440	56.69	202
D Cartmel Fell (The Schoolhouse)	R. J. Craggill, Esq.	5	5	0	220	1762	69.39	219
4.—LUNE. 135 sq. mi.								
D Hampson-in-Ellel	W. G. Welch, Esq.	5	1	6	145	1195	47.05	207
D Lancaster (Bailrigg)	H. L. Storey, Esq.	5	1	3	200	1292	50.87	211
Quernmore (Brow Top)	F. Hill, Esq., C.E.	8	1	0	552	1455	57.28	207
Bowland Forest (Higher Salter)	J. T. Sanderson, Esq.	5	1	0	1014	1211	47.66	..
Bowland Forest (Whiteray)	J. T. Sanderson, Esq.	5	1	0	1139	1677	66.01	..
Bowland Forest (Lower Salter)	J. T. Sanderson, Esq.	5	1	0	575	1593	62.73	..
D Lancaster (Strathspey)	A. B. S. Welch, Esq.	5	1	0	87	1220	48.03	213
Lancaster (Blea Tarn Reservoir)	F. Hill, Esq., C.E.	8	1	0	330	1166	45.89	204
D Lancaster (Greg Observatory)	Neville Holden, Esq.	8	1	0	312	1317	51.85	221
Lancaster (Robert Street)	F. Hill, Esq., C.E.	8	1	0	62	1236	48.64	207
D Caton (School House)	W. Shaw, Esq.	5	1	0	170	1266	49.83	185
D Halton Park	J. G. Wright, Esq.	5	1	1	434	1238	48.73	198
D Wray Vicarage	Rev. C. L. Reynolds	5	1	0	165	1320	51.95	213
D Leck Vicarage	Rev. J. Turner	5	1	1	400	1264	49.77	223
5.—WYRE & C. 213 sq. mi.								
D St. Anne's-on-Sea	Mr. W. E. Procter	5	1	0	25	994	39.14	153
D St. Anne's-on-Sea (Lawrence Ho.)	C. G. D. Hoare, Esq.	5	1	0	30	1000	39.37	183
D Weeton Reservoir	No. 1 J. Cook, Esq., C.E.	5	1	0	133	1186	46.68	196
D Weeton Reservoir	No. 2 J. Cook, Esq., C.E.	5	1	0	150	1065	41.92	189
D Weeton Reservoir	No. 3 J. Cook, Esq., C.E.	5	1	0	108	1194	47.01	194
D Blackpool (Met. Observatory)	E. W. Rees Jones, Esq. M.D.	5	1	0	67	1064	41.91	225
D Broughton (Newsham House)	W. B. S. Smith, Esq.	..	..	..	100	1248	49.14	204
D Kirkham (Elswick Lodge)	L. G. King, Esq.	5	1	4	52	1196	47.08	219
Poulton-le-Fylde (Singleton Pk.)	Mrs. Miller	8	1	6	50	1419	55.87	215
D St. Michael's-on-Wyre (Rose Cot.)	J. Moss, Esq.	5	1	0	27	1149	45.24	207
D St. Michael's-on-Wyre Vicarage	Ven. Archdeacon Hornby	5	1	0	26	1154	45.44	206
Fleetwood	(R) E. Frobisher, Esq.	8	1	8	29	1078	42.45	..
D Garstang (Calder Br. Cottages)	E. Curwen, Esq.	5	1	0	52	1202	47.34	213
Garstang (Holme Ho., Bleasdale)	A. Wilson, Esq.	5	1	0	650	1531	60.29	..
Garstang (Fairsnape Fell)	A. Wilson, Esq.	5	1	0	1630	2030	79.91	..
D Garstang (Barnacre Reservoir)	J. Cook, Esq., C.E.	5	1	0	616	1453	57.20	223
D Garstang (Grizedale Reservoir)	J. Cook, Esq., C.E.	5	1	0	517	1391	54.76	221
Garstang (Calder Intake)	J. Cook, Esq., C.E.	5	1	0	632	1324	52.12	..
Garstang (Grizedale Intake)	J. Cook, Esq., C.E.	5	1	0	644	1268	49.92	..
D Forton (Low Abbey)	Stephen Simpson, Esq.	5	1	6	80	1208	47.57	208
Wyresdale (Abbeystead Res.)	F. Hill, Esq., C.E.	8	1	0	366	1384	54.49	198
D Wyresdale (Abbeystead Gdns.)	Mr. T. Wyton	8	0	6	440	1389	54.68	205
M Quernmore (Old Gauge Basin)	F. Hill, Esq., C.E.	8	1	0	963	1466	57.71	..
M Wyresdale (Wardstone)	F. Hill, Esq., C.E.	8	1	0	1440	1723	67.85	..
6.—INSULAR. 4 sq. mi.								

DIVISION IX.—YORKSHIRE.

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

1.—LUNE. 178 sq. mi.								
D High Bentham (Inglefield)	Mr. Bryan Holmes	5	1	0	412	1265	49.82	208
Ingleton (Kingsdale Head)	Mr. L. Pye	5	0	10	994	2125	83.68	..

DIVISION IX.—YORKSHIRE—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.				Depth of Rain. 1918	Days with 0·1 in. or more	
		Diam.	Height Above Ground Sea Level					
WEST RIDING—(con.)		in.	ft.	in	feet	mm.	inches	
1.—LUNE—(con.)								
D Hawes Junction	.....Mr. W. H. Bunce	5	1	0	1130	1909	75·16	238
D Sedbergh (Akay)	.....C. E. Taylor, Esq.	5	1	0	400	1769	69·65	207
D Sedbergh (Cemetery)	.....Mr. J. Anderson	5	1	0	374	1748	68·82	219
D Sedbergh (Bynac)	.....Mrs. B. Wilson	5	1	0	480	1676	65·98	217
Sedbergh (Howgill School)	.....W. Woodhead, Esq.	5	1	0	550	1752	68·98	219
2.—RIBBLE. 225 sq. mi.								
D Laneshaw Reservoir [Colne]	... J. F. Bedford, Esq., C.E.	5	1	0	842	1062	41·79	205
Barnoldswick (Rainhall Road)	Asa Burniston, Esq.	5	1	2	549	1152	45·36	204
Barnoldswick (Greenberfield L.)	Leeds & L'pool Canal Co.	8	1	0	488	1318	51·87	..
Slaidburn (Knowlmore Manor)	W. Peel, Esq.	5	1	0	417	1654	65·10	..
Slaidburn (Thorneyholme)	... R. A. Tatton, Esq.	5	1	6	380	1746	68·76	..
M Slaidburn (Hareden Brook)	... J. H. Smethurst Esq., C.E.	8	1	2	540	1909	75·15	..
M Slaidburn (Langden Brook)	... J. H. Smethurst Esq., C.E.	8	1	2	556	1947	76·65	..
Slaidburn (Dunsop Houses)	... A. T. Gooseman, Esq., C.E.	8	1	6	450	1839	72·41	192
M Slaidburn (Middle Knoll)	... A. T. Gooseman, Esq., C.E.	8	2	6	1298	1521	59·88	..
Slaidburn (Brennand)	... A. T. Gooseman, Esq., C.E.	8	1	0	820	1812	71·34	190
Slaidburn (Whitendale)	... A. T. Gooseman, Esq., C.E.	8	1	0	830	1952	76·87	192
M Slaidburn (Cabin Hill)	... A. T. Gooseman, Esq., C.E.	8	3	1	1559	1735	68·30	..
M Slaidburn (Baxton Fell)	... A. T. Gooseman, Esq., C.E.	8	2	6	1540	1785	70·29	..
D Settle (Gas Works)	..... J. W. Shepherd, Esq.	8	1	2	450	1375	54·12	223
Horton-in-Ribblesdale	..... Nathaniel Hunt, Esq.	5	1	0	800	1623	63·88	..
3.—MERSEY—Irwell. 2 sq. mi.								
4.—MERSEY, UPPER. 35 sq. mi.								
Greenfield (Upperwood Moor)	.. G. H. Raddin, Esq., C.E.	5	1	0	1518	1653	65·09	..
D Greenfield (Chew Mount)	..... G. H. Raddin, Esq., C.E.	5	1	0	1578	1682	66·22	227
Greenfield (Chew Reservoir)	... G. H. Raddin, Esq., C.E.	5	1	0	1648	1725	67·90	..
D Greenfield (Yeoman Hey)	..... G. H. Raddin, Esq., C.E.	5	1	0	784	1607	63·26	222
Greenfield (Ashway Moss)	..... G. H. Raddin, Esq., C.E.	5	1	0	1581	1373	54·07	..
Greenfield (Birchen Clough)	... G. H. Raddin, Esq., C.E.	5	1	0	1017	1806	71·11	..
M Saddleworth Station	..... E. Prebble, Esq., C.E.	5	4	2	630	1194	47·01	..
Strinesdale [Oldham]	..... C. J. Batley, Esq., C.E.	5	4	0	815	1253	49·32	228
D Standedge (Cas Shaw Broadhead)	C. J. Batley, Esq., C.E.	8	4	6	876	1389	54·70	228
Standedge (Cas Shaw Cudworth)	C. J. Batley, Esq., C.E.	5	4	6	1410	1017	40·05	228
Standedge (Redbrook Res.)	... E. Prebble, Esq., C.E.	8	1	6	1150	1526	60·06	..
Denshaw (Ox Hey)	..... C. J. Batley, Esq., C.E.	8	4	6	1030	1413	55·63	227
D Denshaw (New Year's Bridge)	. C. J. Batley, Esq., C.E.	8	4	0	1012	1332	52·44	227
Denshaw (Ready Con Dean)	... C. J. Batley, Esq., C.E.	8	4	0	1414	1380	54·31	227
5.—TRENT—Derwent. 7 sq. mi.								
Derwent Dale (Abbey Brook)	65 S. B. Winser, Esq., C.E.	5	1	0	825	1246	49·06	..
Derwent Dale (Howden Cl'gh)	64 S. B. Winser, Esq., C.E.	5	1	0	1030	1213	47·75	..
Derwent Dale (Howden Ho.)	19 S. B. Winser, Esq., C.E.	8	1	0	890	1167	45·93	..
Derwent Dale (Sandy Lee)	No 7 S. B. Winser, Esq., C.E.	5	1	0	1340	1251	49·25	..
6.—TRENT—Left Bank Tributaries. 143 sq. mi.								
D Woodsetts Grange (Old Vicarage)	H. P. Marsh, Esq.	..	..	..	245	696	27·42	199
D Doncaster (Carr House Hos.)	.. Dr. D. L. Anderson	5	1	1	40	594	23·40	171
7.—OUSE—Don. 564 sq. mi.								
D Sheffield (Millhouses)	..... T. Firth, Esq.	5	1	6	355	840	33·05	204
D Sheffield (Stumperlow Hall)	... J. Dixon, Esq.	5	1	0	730	939	36·98	204
D Sheffield (Stumperlow Hall)	... J. Dixon, Esq.	5	1	0	770	946	37·23	205
D Sheffield W.W. (Redmires Rs.) (R)	L. S. M. Marsh, Esq., C.E.	10	5	0	1110	1038	40·88	225

DIVISION IX.—YORKSHIRE—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.				Depth of Rain. 1918	Days with 0.1 in. or more	
		Diam.	Height Above Ground Sea Level					
WEST RIDING—(con.)		in. ft. in. feet				mm. inches		
7.—OUSE—Don—(con.)								
	Sheffield W.W. (Redmires Res.) . . . L.S.M. Marsh, Esq., C.E. . .	8	4	0	1110	1019	40.12	..
D	Sheffield W.W. (Rivelin) (R) L.S.M. Marsh, Esq., C.E. . .	10	4	0	564	867	34.14	208
	Sheffield W.W. (Rivelin) L.S.M. Marsh, Esq., C.E. . .	8	4	0	564	866	34.09	..
D	Sheffield W.W. (Crookes) L.S.M. Marsh, Esq., C.E. . .	10	2	0	629	798	31.40	210
	Sheffield W.W. (Crookes) L.S.M. Marsh, Esq., C.E. . .	8	2	0	629	801	31.53	..
D	Sheffield (Weston Park) E. Howarth, Esq.	8	1	0	430	828	32.62	207
D	Darnall (High Hazels Museum) E. Howarth, Esq.	8	1	0	285	634	24.95	183
	Sheffield, (Victoria Station) . . . Great Central Rly. Co. . .	9	3	6	188	681	26.80	174
	Loxley Valley (Broadcar) No. 1 L.S.M. Marsh, Esq., C.E. . .	5	1	0	1004	1172	46.15	..
	Loxley V. (Oaks Fm. Damflask) L.S.M. Marsh, Esq., C.E. . .	5	1	0	650	964	37.97	..
	Loxley V. (Loftshaw, Strines) . . L.S.M. Marsh, Esq., C.E. . .	5	1	0	1011	1137	44.76	..
D	Loxley V. (Dale Dike Res.) . . . L.S.M. Marsh, Esq., C.E. . .	10	3	0	715	1043	41.05	226
	Loxley V. (Dale Dike Res.) L.S.M. Marsh, Esq., C.E. . .	8	3	0	715	1022	40.24	..
	Loxley V. (Thornseat) L.S.M. Marsh, Esq., C.E. . .	5	1	0	1326	1105	43.51	..
	Loxley V. (Rocher Flat) L.S.M. Marsh, Esq., C.E. . .	5	1	0	1106	955	37.60	..
	Loxley V. (Mortimer House) . . L.S.M. Marsh, Esq., C.E. . .	5	1	0	1036	1000	39.39	..
	Rotherham (Ulley Reservoir) . . T. P. Collinge, Esq., C.E. . .	5	1	0	184	540	21.24	..
	Sheffield (Tinsley Locks) Great Central Rly. Co. . .	9	..	..	117	565	22.26	162
D	Wincobank (Sewage Works) (R) J. Haworth, Esq.	8	2	0	99	526	20.69	150
D	Rotherham (Sitwell Vale) Mr. G. Howard	5	1	0	300	634	24.97	169
D	Rotherham (Moorgate Grange) F. M. Watson, Esq.	5	1	0	262	646	25.42	159
D	Rotherham (Aldwarke Sew. Wk.) James H. Kershaw, Esq. . .	5	1	4	71	641	25.24	155
D	Rotherham (Thrybergh) R. E. Ford, Esq., C.E. . .	8	1	0	184	595	23.42	164
D	Chapeltown (Potter Hill) Mr. C. W. Frost	8	5	0	581	679	26.75	180
D	Conisborough (Firsby Reservoir) R. E. Ford, Esq., C.E. . .	8	1	4	189	614	24.19	163
	Wentworth Woodhouse Mr. A. Third	5	0	10	360	714	28.10	..
D	Mexborough G. Fenwick Carter Esq. C.E. . .	5	1	6	77	608	23.93	198
	Wortley Great Central Rly. Co. . .	9	3	6	548	718	28.26	187
	Elsecar Great Central Rly. Co. . .	9	3	6	181	641	25.25	171
D	Little Don Val. (Underbank Res.) L.S.M. Marsh, Esq., C.E. . .	8	1	6	604	938	36.92	238
	Little Don Val. (Brockholes) . . . L.S.M. Marsh, Esq., C.E. . .	5	1	6	934	911	35.86	..
	Little Don Val. (Sheep House) . . L.S.M. Marsh, Esq., C.E. . .	5	1	6	974	882	34.74	..
D	Little Don Val. (Bridge Lane) . . L.S.M. Marsh, Esq., C.E. . .	8	4	9	761	1077	42.40	236
	Langsett Moor (Catcleugh) . . . L.S.M. Marsh, Esq., C.E. . .	8	1	6	1516	1398	55.03	..
	Langsett Moor (Mickleden) . . . L.S.M. Marsh, Esq., C.E. . .	5	1	6	1217	1420	55.92	..
D	Langsett Moor (Upper Midhope) . L.S.M. Marsh, Esq., C.E. . .	8	1	6	925	1098	43.25	235
D	Langsett Moor (Midhope) J. H. Taylor, Esq., C.E. . .	8	1	0	830	926	36.45	212
D	Langsett Moor (Flouch Road) . . L.S.M. Marsh, Esq., C.E. . .	8	4	3	960	1160	45.66	236
	Langsett Moor (Fiddlers Green) . L.S.M. Marsh, Esq., C.E. . .	8	1	6	1493	1446	56.93	..
	Langsett Moor (Border Hill) . . L.S.M. Marsh, Esq., C.E. . .	5	1	6	1148	1396	54.94	..
D	Langsett Moor (Swinden Lodge) L.S.M. Marsh, Esq., C.E. . .	8	1	6	1037	1211	47.68	221
D	Wath-upon-Deerne (Chapel St.) Dr. F. J. Burman	8	2	2	188	634	24.95	178
	Bolton-upon-Deerne T. Washington, Esq. . .	5	1	0	130	645	25.41	158
	Worsborough Great Central Rly Co. . .	9	3	6	225	626	24.63	190
	Doncaster (Hexthorpe Hall) . . H. Morris, Esq.	5	1	6	30	573	22.55	..
D	Doncaster (Littlemoor Terrace) R. F. Moate, Esq.	5	1	6	50	582	22.91	152
	Doncaster Great Central Rly. Co. . .	9	3	6	32	537	21.13	148
D	Doncaster (Pumping Station) . . R. E. Ford, Esq., C.E. . .	5	1	6	30	542	21.32	157
D	Doncaster (Avenue Road) M. H. Stiles, Esq.	5	4	0	62	620	24.42	184
	Dunford Bridge Station Great Central Rly. Co. . .	9	3	6	954	1385	54.52	224

DIVISION IX.—YORKSHIRE—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.		Depth of Rain. 1918	Days with ·01 in. or more			
		Diam.	Height Above Ground SeaLevel					
WEST RIDING—(con.)		in.	ft.	in.	feet	mm.	inches	
7.—OUSE—Don—(con.)								
Penistone	Great Central Rly. Co. .	9	3	6	717	816	32·14	180
Penistone (Hazlehead)	Great Central Rly. Co. .	9	3	9	868	1307	51·45	210
Penistone (Ingbirchworth Res.)	J. H. Taylor, Esq., C.E..	8	1	3	853	943	37·13	197
Barnsley (Jordan Hill)	J. H. Taylor, Esq., C.E..	8	1	0	460	687	27·06	191
Barnsley	Great Central Rly. Co. .	9	3	6	317	556	21·89	158
D Cawthorne (Cannon Hall)	Capt. J. H. Pardoe, ...	5	0	11	418	801	31·54	179
D Brodsworth Hall Gardens	Mr. F. W. Larner	5	1	0	175	629	24·76	187
Burntwood Hall	J. Dymond, Esq.:	5	1	0	378	723	28·47	187
Doncaster (Wyndthorpe)	Viscountess Chetwynd ..	5	0	11	13	529	20·82	..
Kirk Bramwith	H. A. Brundell, Esq., C.E.	5	1	0	17	660	26·00	..
Hemsworth Hall	C. I. Leatham, Esq.	5	1	0	250	671	26·40	172
D Hemsworth Collieries	C. P. Finn, Esq.	5	1	3	246	687	27·03	188
D Badsworth (Rogerthorpe Man.)	Lt.-Col. W. J. F. Ramsden.	8	1	2	150	649	25·55	194
D Ackworth School	E. Priestman, Esq.	8	1	0	125	656	25·83	187
D Ackworth (Hillthorpe)	Mrs. F. Hatchard	5	1	5	175	643	25·31	175
Womersley Park	Mr. J. Hughes	8	0	8	50	584	22·98	..
D Stapleton Gardens.....	Mr. W. H. Dobson	5	4	6	50	672	26·46	163
D Goole	A. W. Wright, Esq. ...	5	2	0	18	786	30·96	172
8.—OUSE—Aire—Calder. 361 sq. mi.								
D Holmbridge (Yateholme Res.)	J. C. Barrowclough, Eq., CE	5	1	0	1009	1864	73·39	231
D Holmbridge (Yateholme Farm)	J. C. Barrowclough, Eq., CE	5	1	0	861	1828	71·97	231
Holmbridge (Holme Styes Res.)	Mr. B. T. Woodcock ...	7	2	0	830	1255	49·40	..
Holmbridge (Boshaw Whams R.)	Mr. B. T. Woodcock ...	5	1	0	930	1382	54·40	..
Holmbridge (Bilberry Res.) ...	Mr. B. T. Woodcock....	5	1	0	970	1582	62·30	..
Meltham (Harden Moss)	J. W. Armitage, Esq., C.E.	8	1	2	1212	1488	58·57	..
Meltham (Harden Moss) <i>new g.</i>	J. W. Armitage, Esq., C.E.	8	1	0	1212	1477	58·15	..
Wessenden Head	J. W. Armitage, Esq., C.E.	8	1	0	1270	1472	57·97	..
Wessenden Head	<i>new g.</i> J. W. Armitage, Esq., C.E.	8	1	0	1200	1611	63·44	..
Wessenden (Hollin Bank Moss)	J. W. Armitage, Esq., C.E.	8	1	0	1360	1292	50·87	..
Wessenden (Old Reservoir)	J. W. Armitage, Esq., C.E.	8	1	0	940	1670	65·73	..
Wessenden (Butterley Moss) ...	J. W. Armitage, Esq., C.E.	8	1	0	1110	1478	58·20	..
Wessenden (Bobus).....	J. W. Armitage, Esq., C.E.	8	1	0	1200	1476	58·13	..
Meltham (Brow Grains)	J. W. Armitage, Esq., C.E.	8	1	0	900	1440	56·69	..
Meltham (Royd Edge)	C. L. Brook, Esq.	8	1	0	585	1488	58·59	..
D Meltham (Harewood Lodge) ..	C. L. Brook, Esq.	8	1	0	514	1365	53·75	223
Meltham Grange	J. W. Armitage, Esq., C.E.	8	1	2	850	1348	53·09	..
Marsden (Deer Hill)	<i>old g.</i> J. W. Armitage, Esq., C.E.	8	1	0	1149	1376	54·16	..
Marsden (Deer Hill)	<i>new g.</i> J. W. Armitage, Esq., C.E.	8	1	0	1149	1482	58·36	..
D Slaithwaite (Blackmoorfoot) ..	J. W. Armitage, Esq., C.E.	8	1	0	800	1406	55·35	261
D Slaithwaite (Inglewood)	J. Woodhead, Esq., ...	5	1	0	546	1458	57·41	248
Huddersfield (Carr End, Dalton)	Mr. T. Hey	8	1	0	350	983	38·71	196
Huddersfield (Bank Field, Golcar)	W. H. Sykes, Esq.	5	0	6	400	1219	47·98	191
D Huddersfield (Cemetery)	Mr. J. Firth	8	1	0	410	1051	41·39	201
D Huddersfield (Oakes)	S. Morris Bower, Esq....	5	1	8	772	1070	42·12	200
D Kirkheaton (Kirk Vale)	Miss A. Robson	8	0	7	220	864	34·03	190
D Rishworth Moor (G. Walden Edge)	C. Clemesha Smith Esq. C.E.	5	0	10	1135	1554	61·18	217
Rishworth (Stott Hall).....	C. Clemesha Smith Esq. C.E.	5	1	0	935	1353	53·28	..
D Rishworth (Ringstone Res.) ...	C. Clemesha Smith Esq. C.E.	5	1	0	990	1344	52·91	215
Rishworth Moor (Greystones) ..	C. Clemesha Smith Esq. C.E.	5	1	0	1175	1614	63·55	..
Soyland Moor (Summit)	C. Clemesha Smith Esq. C.E.	5	1	0	1290	1319	51·92	..

DIVISION IX.—YORKSHIRE—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.		Depth of Rain. 1918	Days with ·01 in. or more	
		Diam.	Height Above Ground Sea Level			
WEST RIDING—(con.)		in.	ft. in.	feet	mm.	inches
8.—OUSE—Aire.—Calder—(con.)						
D Soyland Moor (Baitings Gate)	C. Clemesha Smith Esq., C.E.	5	1 0	935	1610	63·40 238
Soyland Moor (Manshead)	C. Clemesha Smith Esq., C.E.	5	1 0	1240	1439	56·67 ..
Horbury (Highfields)	J. H. Green, Esq.	5	1 0	226	786	30·95 ..
D Mirfield (Cote Wall)	J. Watson-Kaye, Esq.	8	1 2	200	1073	42·25 192
D Wakefield	Dr. H. Maclean Wilson	8	1 0	174	713	28·06 187
D Wakefield (Clarence Park)	C. Clemesha Smith Esq., C.E.	5	1 0	124	767	30·21 201
Elland	P. H. Whitwam, Esq.	8	1 0	307	1053	41·46 175
D Sowerby Bridge (Millhouse)	Mrs. MacDougall Rawson	5	0 8	340	1155	45·47 216
D Sowerby Br. (Haugh End) No. 4	J. Selwyn Rawson, Esq.	5	0 8	450	1178	46·36 224
D Walsden (Ramsden Reservoir)	F. H. Brunt, Esq., C.E.	8	1 0	993	1675	65·93 219
Walsden (Ramsden Hill)	F. H. Brunt, Esq., C.E.	5	1 0	1326	1499	59·00 ..
Walsden (Birks House)	L. F. Walsden, Esq.	5	1 0	550	1528	60·14 ..
D Todmorden (Fielden Hospital)	Mr. F. Rogers	5	1 0	650	1254	49·38 208
D Todmorden (Sourhall Hospital)	Mr. T. Rogers	5	1 0	1020	1624	63·95 212
D Halifax (Hall Ings, S. Owram)	Rev. G. E. Aspinall	5	0 7	750	791	31·14 222
D Halifax (Public Library)	E. Green, Esq.	8	1 0	625	1006	39·59 182
D Batley (Staincliffe Reservoir)	J. C. Barrowclough, Esq., C.E.	5	1 0	492	821	32·33 197
D Ardsley Reservoir	No. 1 C. Clemesha Smith Esq., C.E.	5	1 2	395	768	30·24 192
D Ardsley Reservoir	No. 2 C. Clemesha Smith Esq., C.E.	5	1 2	326	786	30·93 192
D Ardsley (Jaw Hill Filters)	C. Clemesha Smith Esq., C.E.	5	1 0	315	772	30·41 190
Castleford School	S. Gee Esq.	5	1 0	100	952	37·47? ..
D Cleckheaton (Whitcliffe Mt. Sch)	Walton Cliffe, Esq.	5	1 0	430	846	33·32 190
M Halifax W.W. (Albert)	R. J. Hartley, Esq., C.E.	5	1 0	795	1075	42·31 ..
M Halifax W.W. (Gibbet)	R. J. Hartley, Esq., C.E.	5	3 9	568	1067	42·01 ..
M Halifax W.W. (Ramsden Wood)	R. J. Hartley, Esq., C.E.	8	1 2	816	1034	40·71 ..
Hebden Bridge (Falling Royd)	A. R. Crossley, Esq.	4	1 0	479	1392	54·82 206
D Hebden Bridge (Burnside)	J. Hoyle, Esq.	5	1 0	825	1262	49·69 218
M Halifax W.W. (Castle Carr Ldge.)	R. J. Hartley, Esq., C.E.	5	0 6	1060	1110	43·68 ..
M Halifax W.W. (Midgley Moor)	R. J. Hartley, Esq., C.E.	8	0 9	1350	1208	47·58 ..
M Halifax W.W. (Warley Moor)	R. J. Hartley, Esq., C.E.	8	1 2	1325	1128	44·43 ..
M Halifax W.W. (Ogden)	R. J. Hartley, Esq., C.E.	5	0 10	990	1174	46·21 ..
M Halifax W.W. (Ovenden Moor)	R. J. Hartley, Esq., C.E.	8	0 9	1375	1279	50·35 ..
M Halifax W.W. (Widdop)	R. J. Hartley, Esq., C.E.	5	1 3	1050	1346	52·99 ..
M Halifax W.W. (Walshaw Dean Lo.)	R. J. Hartley, Esq., C.E.	5	1 0	1040	1376	54·17 ..
M Halifax W.W. (Walshaw Dean)	R. J. Hartley, Esq., C.E.	8	1 0	1380	1305	51·39 ..
9.—OUSE—Aire. 504 sq. mi.						
Pontefract (Tanshelf Drive)	T. K. Heseltine, Esq.	5	1 0	180	648	25·53 ..
Pudsey (Fulneck)	Miss E. C. Lawford	5	1 0	490	957	37·67 ..
D Garforth (Manor Farm)	A. G. Ruston, Esq.	8	1 2	194	690	27·16 170
Bradford (Grange Road, Horton)	Mr. A. E. Chilton	5	3 0	450	1022	40·25 217
Bradford (Queensbury)	R. J. Foster, Esq.	8	2 2	1050	1144	45·04 192
Bradford (Brayshaw Reservoir)	late J. Watson, Esq., C.E.	5	1 0	982	1105	43·49 200
D Bradford (Lister Park)	Mr. H. Lander	8	1 0	440	962	37·90 203
Bradford (Thornton Moor Filters)	late J. Watson, Esq., C.E.	5	1 0	1218	1184	46·60 222
Bradford (Stubden Res.) No. 8A	late J. Watson, Esq., C.E.	8	1 0	1075	1481	58·31 230
Bradford (Stubden Res.) No. 8B	late J. Watson, Esq., C.E.	8	1 0	1075	1406	55·34 230
Bradford (Stubden Res.) No. 8	late J. Watson, Esq., C.E.	5	1 0	1071	1378	54·27 230
M Bradford (Nan Scar, Oxenhope)	late J. Watson, Esq., C.E.	5	1 0	1101	1264	49·76 ..
M Bradford (Stairs Top, Oxenhope)	late J. Watson, Esq., C.E.	5	1 0	1401	1355	53·36 ..
Bradford (Leeming Reservoir)	late J. Watson, Esq., C.E.	5	1 0	850	975	38·40 247

DIVISION IX.—YORKSHIRE—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.		Depth of Rain.	Days with 0.1 in. or more		
		Diam.	Height Above Ground Sea Level				
		in.	ft.	in.	feet	mm.	inches
WEST RIDING—(con.)							
9.—OUSE—Aire—(con.)							
	Bradford (Doe Park Reservoir) late J. Watson, Esq., C.E.	8	1	0	810	1290	50.80 211
	Bradford (Doe Park Reservoir) late J. Watson, Esq., C.E.	5	1	0	811	1192	46.92 211
M	Bradford (Leeshaw Res.) late J. Watson, Esq., C.E.	5	1	0	875	1402	55.20 .
	Bradford (Chellow Dean Res.) . . late J. Watson, Esq., C.E.	5	1	0	645	1109	43.66 218
	Bradford (Chellow Heights Res.) . late J. Watson, Esq., C.E.	5	1	0	848	1087	42.80 218
	Bradford (Hewenden Res.) <i>old g.</i> late J. Watson, Esq., C.E.	5	1	0	700	1205	49.80 222
	Bradford (Hewenden Res.) <i>new g.</i> late J. Watson, Esq., C.E.	5	1	0	701	1244	48.96 222
	Bradford (Heaton Reservoir) . . late J. Watson, Esq., C.E.	8	1	0	530	1002	39.44 204
	Bradford (Heaton Reservoir) . . late J. Watson, Esq., C.E.	5	1	3	531	974	38.35 204
	Leeds (Wortley Reservoir) C. G. Henzell, Esq., C.E.	8	0	9	307	837	32.96 197
	Leeds (Knostrop) C. G. Henzell, Esq., C.E.	8	0	9	72	672	26.47 171
	Leeds (Holbeck W.W. Dépôt) . . C. G. Henzell, Esq., C.E.	8	0	9	93	779	30.67 217
	Leeds (Great George Street) . . C. G. Henzell, Esq., C.E.	5	0	9	180	757	29.81 191
D	Leeds (Museum) H. Crowther, Esq.	8	46	0	177	810	31.87 185
	Leeds (Woodhouse Moor) C. G. Henzell, Esq., C.E.	8	0	9	307	828	32.60 196
	Leeds (Weetwood Res.) No. 1 C. G. Henzell, Esq., C.E.	8	0	9	328	808	31.79 187
	Leeds (Weetwood Res.) No. 2 C. G. Henzell, Esq., C.E.	8	0	9	328	751	29.55 188
	Leeds (Weetwood Garth) F. Gott, Esq.	5	0	5	300	771	30.37 156
	Leeds (Gledhow Grove) F. J. Kitson, Esq.	5	2	6	285	801	31.55 164
	Leeds (Allerton Hill) T. Harding Churton, Esq.	5	0	7	418	792	31.20 ..
	Shipley (Cragg End) Leeds & L'pool Canal Co.	8	1	0	304	943	37.11 ..
D	Shipley (Glenholme) M. E. Burton, Esq.	5	0	9	370	994	39.13 206
D	Haworth (Harbour Lodge) . . . M. R. Barnett, Esq., C.E.	8	1	0	1187	1466	57.70 237
D	Haworth (Lower Laithe Res.) . . M. R. Barnett, Esq., C.E.	5	0	10	772	1369	53.90 232
D	Haworth (Lower Laithe Res.) (R) M. R. Barnett, Esq., C.E.	6	1	7	772	1378	54.24 229
D	Oakworth (Oldfield Filters) . . M. R. Barnett, Esq., C.E.	5	1	0	1008	1309	51.54 215
	Bingley (Gilstead Filters) late J. Watson, Esq., C.E.	5	1	0	572	984	38.75 205
D	Adel (Lawns Wood Cemetery) . Mr. S. R. Dyson	5	1	0	475	952	37.50 238
D	Keighley (The Knowle) P. Clough, Esq.	5	1	0	385	1069	42.07 209
	Keighley (Victoria Park) Mr. R. Butterfield	5	1	0	305	978	38.49 207
	Bingley (Sunnydale Reservoir) . late J. Watson, Esq., C.E.	5	1	0	825	936	36.84 225
D	Salterforth (Barnoldswick W.W.) J. W. Thompson, Esq.	8	1	4	832	1504	59.22 200
D	Kelbrook (Higher Burnt Hill Fm.) J. E. Aldersley, Esq. . .	8	1	0	1050	1146	45.11 199
D	Earby (Sewage Works) J. E. Aldersley, Esq. . . .	5	1	0	425	1226	48.27 208
D	Earby (Sewage Works) (R) J. E. Aldersley, Esq. . . .	6	1	9	426	1174	46.20 208
D	Silsden (Bolton Road) Mr. A. Elder	5	1	0	432	957	37.66 179
	Silsden (Gill Grange) late J. Watson, Esq., C.E.	5	1	0	883	895	35.25 ..
	Silsden Reservoir late J. Watson, Esq., C.E.	5	1	0	560	957	37.67 201
	Silsden (Cringles Res. Site) . . . late J. Watson, Esq., C.E.	5	1	0	760	982	38.66 201
D	Elslack (Moorside Farm) J. W. Thompson, Esq. . . .	5	0	7	835	1299	51.14 213
	Carleton (Beech Hill) W. Cyril Empson, Esq. . .	8	5	3	425	1128	44.40 ..
D	Skipton (Sewage Works) A. E. W. Aldridge, Esq.	8	0	9	315	1060	41.75 192
D	Skipton (Town Hall) (R) A. E. W. Aldridge, Esq.	6	1	6	367	1033	40.67 193
	Skipton (Hawthorne Cottage) . . Leeds & L'pool Canal Co.	8	1	0	380	987	38.87 ..
	Gargrave (Banks Hill Bank N'wtn) Leeds & L'pool Canal Co.	8	1	0	545	1166	45.89 ..
	Gargrave (Ray Bridge Hill) . . . Leeds & L'pool Canal Co.	8	0	10	459	1013	39.89 ..
D	Skipton (Embsay Moor Res.) . . A. E. W. Aldridge, Esq.	8	1	3	670	1043	41.07 194
	Rylstone Rectory Rev. C. H. Lowe	5	0	7	708	1217	47.91 208
	Winterburn (Long Hill) Leeds & L'pool Canal Co.	8	0	9	705	1299	51.13 ..
	Winterburn (Brown Hill) Leeds & L'pool Canal Co.	8	1	0	961	1386	54.55 ..

DIVISION IX.—YORKSHIRE—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.				Depth of Rain.		Days with ·01 in. or more
		Diam.	Height Above Ground Sea Level			1918		
WEST RIDING—(con.)		in.	ft.	in.	feet	mm.	inches	
9.—OUSE—Aire—(con.)								
D Malham Tarn	Mr. John Winskill	8	1	0	1296	1612	63·47	235
D Malham Tarn	Mr. John Winskill	5	1	0	1296	1628	64·11	235
10.—OUSE—Wharfe. 408 sq. mi.								
D Aberford (Lotherton Hall) (R)	Mrs. Trench Gascoigne .	8	1	0	200	681	26·80	183
D Saxton Vicarage	Rev. C. D. Ash	5	1	6	95	717	28·23	195
Adel (Eccup, South)	C. G. Henzell, Esq., C.E.	8	0	9	390	847	33·33	203
Adel (Eccup, East)	C. G. Henzell, Esq., C.E.	8	0	9	375	882	34·72	204
D Bardsey Lumping Station	M. C. Wood, Esq.	5	2	6	250	798	31·41	188
Harewood (Arthington)	C. G. Henzell, Esq., C.E.	8	0	9	139	1009	39·71	181
D Harewood House	Countess of Harewood ..	5	0	10	300	876	34·50	163
D Menston	W. Daniel, Esq.	5	1	6	550	983	38·70	192
D Otley (Sewage Works)	T. E. Davies, Esq.	5	1	0	172	828	32·61	164
Ilkley (Silverwell Cottage)	G. A. Waite, Esq.	5	1	0	900	1176	46·30	207
D Ilkley (St. James' Road)	Miss F. Brown	5	1	0	325	1051	41·37	181
Ilkley (Spence's Garden)	G. A. Waite, Esq.	5	1	0	314	1132	44·56	210
Wetherby (Park Hill)	W. Bridgeman Simpson Esq	5	1	4	170	808	31·81	183
Leathley (Lindley Wood, S.) ..	C. G. Henzell, Esq., C.E.	8	0	9	312	944	37·15	228
Leathley (Lindley Wood, N.) ..	C. G. Henzell, Esq., C.E.	8	0	9	320	944	37·16	228
D Ilkley (March Gill Reservoir) ..	T. E. Davies, Esq.	5	1	0	655	1140	44·87	185
D York (Mount Villas)	Mrs. Rowntree	5	1	0	70	766	30·16	225
York (Cherry Hill)	Mssrs. H. Richardson & Co.	5	1	6	50	686	26·99	171
York (Museum Gardens)	J. Edmund Jones, Esq. .	9	1	0	57	645	25·39	184
D York (The Retreat)	Dr. H. J. Mackenzie ...	5	1	0	74	711	27·99	201
York (Acomb Landing)	W. H. Humphreys, Esq.	5	1	0	40	655	25·80	184
M Skipton (Counter Hill)	late J. Watson, Esq., C.E. .	5	1	0	951	952	37·46	..
Skipton (Chelker Reservoir) ...	late J. Watson, Esq., C.E. .	5	1	0	730	1031	40·59	..
Fewston (Timble Ings)	C. G. Henzell, Esq., C.E.	8	0	9	912	1088	42·82	226
Fewston (Timble)	C. G. Henzell, Esq., C.E.	8	0	9	720	1030	40·53	222
Fewston (Swinsty, E.)	C. G. Henzell, Esq., C.E.	8	0	9	460	991	39·01	223
Fewston (Swinsty, W.)	C. G. Henzell, Esq., C.E.	8	0	9	425	1009	39·71	223
Fewston, South	C. G. Henzell, Esq., C.E.	8	0	9	525	1059	41·69	225
Fewston, North	C. G. Henzell, Esq., C.E.	8	0	9	525	986	38·84	225
Fewston (Blubberhouses)	C. G. Henzell, Esq., C.E.	8	0	9	575	1110	43·68	226
Bolton Abbey Estate Office ..	A. Downs, Esq.	5	1	2	368	1120	44·10	207
Barden Reservoir	late J. Watson, Esq., C.E.	8	1	0	746	1216	47·86	230
Barden Reservoir	late J. Watson, Esq., C.E.	5	1	0	746	1252	49·28	230
Upper Barden Reservoir	late J. Watson, Esq., C.E.	5	1	0	1250	1235	48·62	222
Thruscross (Lane Head)	C. G. Henzell, Esq., C.E.	8	0	9	950	1040	40·94	229
M Burnsall (Thorpe Fell)	late J. Watson Esq., C.E.	5	1	0	1661	1320	51·99	..
M Burnsall (Sandbed Beck)	late J. Watson, Esq., C.E.	5	1	0	676	1251	49·26	..
D Burnsall Rectory	Rev. W. J. Stavert	8	4	7	503	1291	50·81	222
Grimwith Reservoir	late J. Watson, Esq., C.E.	8	1	0	890	1320	51·97	213
Grimwith Reservoir	late J. Watson, Esq., C.E.	5	1	0	893	1286	50·64	213
Grimwith (Trunla Hill)	late J. Watson, Esq., C.E.	5	1	0	1201	1156	45·50?	..
Oughtershaw Hall	Miss Woodd	8	1	6	1175	2081	81·93	192
11.—OUSE—Nidd. 254 sq. mi.								
Spofforth (Sewage Works)	C. E. Rivers, Esq., C.E.	5	1	0	181	867	34·12	207
Wetherby (Ribston Hall)	Mr. W. Simpson	5	1	2	130	861	33·89	..
M Harrogate W.W. (Ling Cottage)	A. S. West, Esq., C.E. ..	5	1	0	740	916	36·07	..
M Harrogate W.W. (Broad Dubb) ..	A. S. West, Esq., C.E. ..	5	1	0	725	982	38·65	..

DIVISION IX.—YORKSHIRE—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.				Depth of Rain. 1918	Days with ·01 in. or more
		Diam.	Height Above Ground SeaLevel				
WEST RIDING—(con.)		in.	ft.	in.	feet	mm.	inches
11.—OUSE—Nidd—(con.)							
M HarrogateW.W.(CobblersCott.)	A. S. West, Esq., C.E.	5	1	0	730	966	38·03 ..
HarrogateW.W.(Ten Acres Res.)	A. S. West, Esq., C.E.	8	1	6	620	948	37·31 204
D HarrogateW.W.(Scargill Res.)	A. S. West, Esq., C.E.	8	1	0	646	969	38·15 204
HarrogateW.W.(BeaverDykeR.)	A. S. West, Esq., C.E.	8	0	11	575	952	37·48 205
M HarrogateW.W.(John o'Gaunts)	A. S. West, Esq., C.E.	5	1	0	600	1010	39·77 ..
M Harrogate W.W.(Long Stoop)	A. S. West, Esq., C.E.	5	1	0	700	986	38·84 ..
M Harrogate W.W.(Knab's Moor)	A. S. West, Esq., C.E.	5	1	0	700	936	36·85 ..
D Harrogate (Harlow Moor Obsy.)	C. E. Rivers, Esq., C.E.	5	1	0	480	883	34·76 206
D Harrogate (Harlow Hill Res.)	A. S. West, Esq., C.E.	8	1	0	589	820	32·27 189
Harrogate(IrongateBridgeRes.)	A. S. West, Esq., C.E.	8	1	6	455	929	36·57 196
D Harrogate (The Stray)	Mr. G. W. Gledhill	5	1	0	380	886	34·90 195
D Harrogate (Park Parade)	Mr. G. W. Gledhill	5	1	0	380	892	35·12 195
D Knaresborough (Water Tower)	A. S. West, Esq., C.E.	8	1	0	240	803	31·61 185
D Knaresborough (Grammar Sch.)	C. W. H. Greaves, Esq.	5	1	0	230	890	35·04 200
Harrogate(BiltonSewageWorks)	C. E. Rivers, Esq., C.E.	5	1	0	208	836	32·92 201
D Birstwith (Swarcliffe)	Lt.-Col. C. S. Greenwood	5	1	0	510	1085	42·73 210
D Greenhow Hill (Keld House)	Harold Bruff, Esq., C.E.	5	1	0	1302	1377	54·23 234
Ramsgill (HolmeHo.Gouthwaite)	late J. Watson, Esq., C.E.	5	1	0	464	1182	46·55 209
Ramsgill (Raygill House)	late J. Watson, Esq., C.E.	5	1	0	925	1434	56·47 196
Ramsgill	late J. Watson, Esq., C.E.	5	1	0	450	1051	41·39 184
Nidderdale (High Riggs)	late J. Watson, Esq., C.E.	5	1	0	1010	1357	53·41 163
M Nidderdale (East Gill Head)	late J. Watson, Esq., C.E.	5	1	0	1710	1771	69·73 ..
M Nidderdale (Rain Stang)	late J. Watson, Esq., C.E.	5	1	0	1470	1458	57·40 ..
Nidderdale (New Houses)	late J. Watson, Esq., C.E.	5	1	0	755	1286	50·62 177
Nidderdale (West Houses)	late J. Watson, Esq., C.E.	5	1	0	1150	1479	58·22 203
12.—OUSE—Ure. 110 sq. mi.							
Dallow Moor (Harper Hill)	C. G. Henzell, Esq., C.E.	5	0	9	858	956	37·64 209
D Ripon (Studley Royal Gardens)	Marquis of Ripon	5	1	6	250	883	34·75 198
Ripon (The Red House)	J. Edmund Jones, Esq.	5	1	0	120	791	31·13 ..
Kirkby Malzeard (Drovers' Inn)	C. G. Henzell, Esq., C.E.	8	0	9	576	1089	42·86 221
Kirkby Malzeard (Hawsett)	C. G. Henzell, Esq., C.E.	8	0	9	820	1127	44·38 228
Kirkby Malzeard (HambletonH.)	C. G. Henzell, Esq., C.E.	8	0	9	1106	1134	44·63 ..
Kirkby Malzeard (BagwithBrae)	C. G. Henzell, Esq., C.E.	5	0	9	703	974	38·35 211
Kirkby M. (Stone & Ears Wham)	C. G. Henzell, Esq., C.E.	8	0	9	1118	1204	47·39 ..
EAST RIDING. (Area, 1176 sq. mi.)							
1.—OUSE—Left Bank Tributaries. 82 sq. mi.							
Deighton Grove (York)	Miss M. L. Whitehead	5	2	0	47	673	26·49 152
Heslington [York]	Hn Lde Yarbrough-Bateson	8	0	7	35	748	29·47 190
D Dunnington Hall [York]	Miss Hildyard	8	1	2	110	726	28·60 209
2.—OUSE—Derwent. 248 sq. mi.							
D Howden Observatory	The Air Ministry	8	0	9	18	660	25·99 192
D Elvington (The Glenne)	Dr. C. A. Lower	5	1	3	35	728	28·65 200
D Warter	Mrs. J. Coxon	5	1	10	230	802	31·57 182
D Burythorpe Rectory	Rev. William Robinson	5	1	0	240	709	27·90 213
D Birdsall Gardens	Mr. J. Anderson	5	1	3	303	769	30·29 197
D Malton (The Leat House)	W. R. Innes Hopkins, Esq.	5	0	10	60	723	28·46 197
D Rillington (Scampston Hall)	Mr. F. C. Puddle	5	1	6	152	690	27·16 195
Hunmanby (Holly Bank)	Miss Ackland	5	1	2	..	710	27·97 ..

DIVISION IX.—YORKSHIRE—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.				Depth of Rain.		Days with 0·1 in. or more
		Diam.	Height Above Ground Sea Level			1918		
EAST RIDING—(con.)		in. ft. in. feet				mm.	inches	
3.—HUMBER—Left Bank Tributaries. 675 sq. mi.								
Patrington (Spurn Head)	Meteorological Office	8	1	0	27	552	21·73	170
Patrington	Miss H. Kirman	5	2	6	46	556	21·88	..
D Hull (Pearson Park)	H. B. Witty, Esq.	5	0	10	12	611	24·06	193
D Hull (Springhead)	C. B. Newton, Esq., C.E.	5	1	0	16	654	25·75	225
D Cottingham (Water Works)	C. B. Newton, Esq., C.E.	5	1	1	26	575	22·64	178
D Holme-upon-Spalding-Moor	C. J. Pybus, Esq.	8	1	0	35	689	27·12	170
D Beverley (East Riding Asylum)	Dr. E. J. Minchin	5	1	0	175	650	25·57	185
Beverley (New Walk)	W. Evans, Esq., C.E.	5	3	0	38	678	26·70	202
Beverley (Hull Bridge)	W. Evans, Esq., C.E.	5	2	6	11	628	24·71	198
D Market Weighton (Dalton Holme)	Mr. J. P. Jobling	8	6	0	150	732	28·80	193
D Watton Abbey	J. A. Coulson, Esq.	5	1	0	40	682	26·84	182
Brandesburton (Hempholm Lk.)	W. Evans, Esq., C.E.	5	2	6	11	629	24·75	202
D Lowthorpe (The Elms)	F. K. Hawes, Esq.	5	1	0	63	656	25·82	176
4.—EAST COAST STREAMS. 171 sq. mi.								
D Bridlington	S. R. Crofts, Esq.	5	1	0	59	678	26·71	250
D Bridlington	G. T. Reeve, Esq.	8	1	0	57	622	24·47	162
D Helperthorpe (West Farm)	H. D. Birdsall, Esq.	5	1	0	250	774	30·48	188
D Filey Vicarage	Rev. Canon A. N. Cooper	5	0	9	95	636	25·02	204
NORTH RIDING. (Area, 2155 sq. mi.)								
1.—OUSE—Ure. 273 sq. mi.								
Masham Moor (Somerside)	C. G. Henzell, Esq., C.E.	5	0	9	928	1144	45·04	221
Masham Moor (Autherlands)	C. G. Henzell, Esq., C.E.	5	0	9	1237	1246	49·04	..
Masham Moor (High Sour Mire)	C. G. Henzell, Esq., C.E.	5	0	9	884	966	38·05	..
Masham Moor (Spruce Gill)	C. G. Henzell, Esq., C.E.	5	0	9	1187	1282	50·48	..
Masham Moor (Leighton Res.)	C. G. Henzell, Esq., C.E.	5	0	9	643	1040	40·96	219
Masham Moor (Thorney Grane)	C. G. Henzell, Esq., C.E.	5	0	9	1175	1313	51·70	..
Masham Moor (Bracken Hill)	C. G. Henzell, Esq., C.E.	5	0	9	1450	1246	49·07	..
Masham Moor (Towler Hill)	C. G. Henzell, Esq., C.E.	8	0	9	820	1045	41·13	222
Masham Moor (Spruce Gill, E.)	C. G. Henzell, Esq., C.E.	5	0	9	915	1089	42·88	..
Marsham Moor (Spruce Gill, N.)	C. G. Henzell, Esq., C.E.	5	0	9	883	1012	39·86	..
Masham Moor (Breary Bank)	C. G. Henzell, Esq., C.E.	5	0	9	600	1062	41·83	218
Masham Moor (Healey)	C. G. Henzell, Esq., C.E.	5	0	9	542	1010	39·76	207
Masham Moor (Low Houses)	C. G. Henzell, Esq., C.E.	5	0	9	693	1062	41·83	232
Masham Moor (Black Brunt)	C. G. Henzell, Esq., C.E.	5	0	9	1160	1104	43·46	..
Masham Moor (Brown Beck)	C. G. Henzell, Esq., C.E.	5	0	9	1150	1119	44·05	..
D Masham Moor (Roundhill Res.)	A. S. West, Esq., C.E.	8	1	0	743	1179	46·41	213
D Clifton Castle Gardens	Lady Cowell	5	1	0	360	873	34·38	195
Middleham (Cottescue)	A. Rowntree, Esq.	5	0	1	600	937	36·89	..
D Middleham (Castle Hill)	Col. P. H. Hammond	5	1	0	470	986	38·82	206
D Middleham (The Deanery)	Rev. H. G. Topham	5	1	0	450	972	38·25	184
D West Witton (Ivy House)	J. B. Espiner, Esq.	5	1	0	606	973	38·31	216
D Leyburn (Bolton Hall)	Mr. F. Scrivener	8	1	0	420	966	38·02	223
D Hawes (The Stone House)	H. Arden Crallan, Esq.	5	1	6	845	1486	58·52	206
2.—OUSE—Swale. 569 sq. mi.								
Husthwaite Vicarage	Rev. G. Gill	5	1	0	282	665	26·18	..
Sessay Rectory	Rev. F. Payne Gallwey	5	1	0	113	699	27·51	162
D Dalton Parsonage	Rev. G. H. Chilman	5	1	0	79	708	27·87	179
D Carlton Husthwaite	W. R. Bagley, Esq.	5	1	0	190	700	27·58	204
D Coxwold (The Old Hall)	H. Geipel, Esq.	5	1	6	260	756	29·78	160

DIVISION IX.—YORKSHIRE—(continued).

STATIONS.	AUTHORITIES.	Diam.	Rain Gauge.		Height Above Ground Sea Level	Depth of Rain.		Days with ·01 in. or more
			in.	ft.		in.	feet		1918	mm. inches
NORTH RIDING—(con.)								
2.—OUSE—Swale—(con.)								
D Baldersby (Baldersby Park) . . .	Mr. J. E. Hathaway . . .	10	2	0	100	713	28·06	208
D Thirsk (Spital Hill)	C. H. Gill, Esq.	5	1	0	117	668	26·32	213
Thirsk (Sowerby)	William Brown, Esq. . . .	5	1	0	110	740	29·12	..
Thirsk (Carlton Grange)	Mrs. Pollard	5	1	0	93	719	28·31	168
D Thirsk (Brynkellhow)	A. B. Hall, Esq.	8	1	0	115	794	31·27	203
D Thirsk (Stoneybrough)	T. J. Foggitt, Esq.	5	1	2	122	736	28·97	184
M Felixkirk (Thirlby)	A. J. Walker, Esq.	5	1	0	339	751	29·56	..
D Felixkirk (Mount St. John) . . .	A. J. Walker, Esq.	5	1	0	523	714	28·13	196
D Felixkirk (Mount St. John) . . .	A. J. Walker, Esq.	5	1	10	542	745	29·34	198
Felixkirk (Mount St. John) . . .	A. J. Walker, Esq.	5	1	10	542	722	28·43	..
M Felixkirk (Mount St. John) . . .	A. J. Walker, Esq.	5	1	0	541	729	28·69	..
D Boltby (Ravensthorpe Manor) .	F. E. Walker, Esq.	5	1	7	661	762	30·01	191
Boltby, East	A. J. Walker, Esq.	5	1	0	460	785	30·91	..
M Boltby (Cliff Head)	No 2A. J. Walker, Esq. . . .	5	1	4	772	762	30·02	..
M Boltby (High Paradise)	A. J. Walker, Esq.	5	1	3	1144	905	35·62	..
D Kirkby Knowle Rectory	Rev. C. H. Murray	5	1	0	436	715	28·16	183
D Bedale (Burneston Vicarage) .	Rev. Canon J. T. Hartley	5	1	0	120	693	27·27	178
Bedale (Thorp Perrow)	Mr. W. Pattison	5	1	6	140	732	28·81	180
Maunby Hall	Maj. A. Hill-Walker, V.C.	5	1	0	90	659	25·96	..
Bedale (Park House)	Miss M. Greenwood	5	1	1	180	728	28·66	188
Newby Wiske	H. Rutson, Esq.	5	0	10	105	702	27·63	155
D Thornton-le-Moor	Lt.-Col. R. W. Peckitt . .	5	1	0	136	732	28·81	187
D Thornton le Moor (Pasture Ho.)	G. H. Croft, Esq.	5	1	0	225	709	27·93	197
North Otterington (Sowbergate)	J. Hutton, Esq.	5	1	2	100	670	26·38	198
Kepwick Vicarage	Rev. T. E. Parkinson . .	5	1	0	530	787	30·97	152
Scruton Hall	Rev. A. T. Coore	5	1	6	110	624	24·55	182
Swaledale (Gunnarside Lodge) .	W. M. Christy, Esq. . . .	5	1	0	950	1402	55·18	..
D Muker Vicarage	Rev. J. E. Gaskill	5	1	0	800	1507	59·34	201
Northallerton (Brompton) . . .	J. P. Yeoman, Esq. . . .	5	0	6	160	590	23·21	..
D Osmotherley	T. Yeoman, Esq.	8	0	8	660	759	29·88	189
D East Harlsey (Harlsey Hall) . .	J. Constantine Esq. . . .	5	1	0	370	701	27·61	167
D Rounton Grange	Mr. J. Hanagan	8	1	0	249	686	27·02	218
D Reeth (Arkengarthdale)	Samuel Gott, Esq.	5	1	0	940	1152	45·35	154
Richmond (Gilling West)	G. Roper, Esq.	5	1	3	303	963	37·91	179
Middleton Tyas	J. F. B. Baker, Esq. . . .	5	0	10	380	714	28·11	..
3.—OUSE—Left Bank Tributaries. 153 sq. mi.								
Haxby (Moorlands)	(R) E. G. Tew, Esq.	8	0	8	58	703	27·67	..
Sutton-on-Forest (Sutton Hall)	Mrs. Grey	5	1	0	125	610	24·03	..
D Brandsby School	A. G. Frost, Esq.	5	1	0	297	762	30·01	206
4.—OUSE—Derwent. 509 sq. mi.								
Huttons Ambo (Minster Hill) .	J. W. Procter, Esq. . . .	5	1	3	75	625	24·59	..
D Malton (Broughton Rise)	C. C. Laverack, Esq. . . .	5	1	0	164	746	29·38	190
Hovingham Hall	Sir W. H. A. Worsley, Bt.	5	0	6	120	750	29·54	199
Ampleforth Abbey	Rev. H. de Normanville	8	1	0	351	744	29·30	199
D Helmsley (Duncombe Pk. Gdns)	Mr. D. Williams	5	3	0	176	824	32·43	165
D Pickering (Hungate Hall)	Dr. J. L. Kirk	5	1	0	90	754	29·68	219
D Seamer (Irton Pump Station) .	W. Millhouse, Esq., C.E.	8	1	0	94	834	32·84	205
Scarborough (Osgodby)	W. Millhouse, Esq., C.E.	8	1	0	166	685	26·97	..
D East Ayton (Derwent House) . .	A. H. Robinson, Esq. . .	5	1	0	110	772	30·40	181
D East Ayton Lodge	Rev. R. Walker	5	0	6	175	800	31·49	188

DIVISION IX.—YORKSHIRE—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain. 1918	Days with ·01 in. or more		
		Diam.	Height Above Ground Sea Level					
NORTH RIDING—(con.)		in.	ft.	in.	feet	mm.	inches	
4.—OUSE—Derwent—(con.)								
Kirkby Moorside (Ravenswyke)	Harrison Holt, Esq.	5	1	0	220	727	28·62	..
Kirkby Moorside (Hutton-le-Hole)	F. M. Curtis, Esq.	5	1	0	350	841	33·12	..
D Hawnby Rectory	Rev. W. Hughes	5	1	0	497	887	34·93	177
D Rosedale Abbey Vicarage	Rev. W. Wainman	5	1	0	550	883	34·76	214
Farndale Vicarage	Rev. H. W. Smith	5	1	0	476	937	36·89	198
D Bilsdale Priory	Rev. J. Powell Parry	5	1	0	638	828	32·61	203
5.—ESK & C. 278 sq. mi.								
D Scarborough	W. W. Larkin, Esq.	5	1	0	105	789	31·05	192
D Scarborough (Scalby)	Mrs. J. W. Rowntree	5	0	11	300	812	31·95	156
D Scarborough (Scalby St. Philips)	Rev. W. E. Stewart	5	1	0	130	682	26·84	200
Goathland (Thwaitefield)	Lewis G. Rowland, Esq.	5	0	6	485	682	26·86	..
D Glaisdale (The Gables Gardens)	Mr. H. Hope	5	0	9	400	849	33·42	179
D Sleights (Carr Hill)	E. Isle Hubbard, Esq.	5	1	0	150	588	23·17	172
D Whitby (Park Hall, Aislaby)	Rev. J. H. Richardson	5	1	0	500	671	26·41	190
D Whitby (Ocean Road)	T. W. Parkinson, Esq.	8	1	0	125	598	23·54	182
D Whitby (Mulgrave Castle)	Mr. J. Corbett	5	1	0	410	668	26·31	197
D Guisborough (Lockwood Res.)	W. M. I'Anson, Esq., C.E.	8	1	0	632	728	28·66	175
M Guisborough (Lockwood Res.)	W. M. I'Anson, Esq., C.E.	8	1	0	632	714	28·12	..
D Skelton-in-Cleveland Rectory	Rev. H. Mackworth Drake	5	1	0	300	613	24·15	168
D Salthurn (Skelton Castle)	Lt.-Col. W. H. A. Wharton	5	0	9	272	686	27·02	189
6.—TEES. 373 sq. mi.								
D Ingleby Manor	Lord De L'Isle & Dudley	5	0	11	460	758	29·84	169
Ingleby Greenhow Vicarage	Rev. M. A. Horsfall	5	1	6	420	774	30·47	176
D Ingleby Greenhow (School Ho.)	P. Huntington, Esq.	5	1	0	430	748	29·44	177
D Croft (Dalton-on-Tees)	Mr. W. Wrather	8	2	0	170	645	25·38	162
D Great Ayton (Friend's School)	E. Battrick, Esq.	5	6	0	300	712	28·04	163
Hutton Magna Vicarage	Rev. A. W. M. Close	5	0	4	450	818	32·22	172
D Kildale Hall	Major R. B. Turton	5	1	2	600	832	32·76	218
D Middlesbrough (Albert Park)	J. M. Parnaby, Esq.	8	1	0	30	563	22·15	163
M Baldersdale (Blackton Res.)	Hugh Wilson, Esq.	5	1	0	937	1156	45·50	..
M Baldersdale (Balderhead)	Hugh Wilson, Esq.	5	1	0	1360	1364	53·70	..
D Baldersdale (Hury Reservoir)	Hugh Wilson, Esq.	5	1	0	866	1019	40·11	194
M Lunedale (Lunehead)	Hugh Wilson, Esq.	5	1	0	1450	1661	65·40	..
M Lunedale (Selset)	Hugh Wilson, Esq.	5	1	0	924	1176	46·30	..
D Lunedale (Grassholme Res.)	Hugh Wilson, Esq.	5	1	0	936	1147	45·16	180
M Mickleton (Lime Kiln Pasture)	Mr. J. Harvey	8	1	0	1175	930	36·60	..

DIVISION X.—NORTHERN COUNTIES.

DURHAM. (Area, 1011 sq. mi.)

1.—TEES & C. 396 sq. mi.

Darlington (Public Park)	Northern Echo	5	1	0	150	644	25·35	184
Darlington (Hummersknott)	Mr. J. Short	5	1	0	200	668	26·30	..
D Piercebridge (Carlbury Hall)	J. H. Pease, Esq.	5	1	0	222	685	26·98	172
D Barnard Castle (County School)	R. C. Hitchcock, Esq.	5	1	6	540	799	31·44	191
D Stockton (Ropner Park)	W. A. Jenkins, Esq.	5	1	9	61	564	22·22	154
D Sedgfield (Hardwick Hall)	Viscountess Boyne	5	0	3	400	619	24·36	165
D Hurworth Burn (Crookfoot Res.)	A. W. Branson, Esq., C.E.	10	1	6	293	595	23·41	196

DIVISION X.—NORTHERN COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain. 1918	Days with ·01 in. or more		
		Diam.	Height Above Ground Sea Level					
DURHAM—(con.)		in.	ft.	in.	feet	mm.	inches	
1.—TEES & C—(con.)								
D West Hartlepool (Water Works)	A. W. Branson, Esq., C.E.	10	1	0	35	587	23·11	169
D Hurworth Burn Reservoir	A. W. Branson, Esq., C.E.	10	1	0	357	602	23·72	195
D Hartlepool (Hart Reservoir)	A. W. Branson, Esq., C.E.	10	1	0	172	569	22·41	176
D Shotton Pumping Station	A. B. E. Blackburn, Esq.	8	1	0	422	524	20·62	162
D Seaham (Dalton Pumping Sta.)	A. B. E. Blackburn, Esq.	8	1	0	345	660	25·98	197
2.—WEAR. 464 sq. mi.								
Wolsingham (Dryderdale)	Mr. G. Cranston	5	1	0	700	794	31·28	162
D Willington Rectory	Rev. Canon T. Urmson	5	1	0	285	638	25·13	154
D Brancepeth Castle	Mr. A. Allardice	5	0	6	341	673	26·48	167
Wearhead Station	late Mr. R. Rust	5	0	6	1104	1227	48·31	..
Durham Observatory	A. Robinson, Esq.	8	0	10	336	574	22·60	197
Ushaw (St. Cuthbert's College)	Rev. A. Forkin	5	0	9	596	904	35·61	206
Pittington (Elemore Hall)	Miss Baker Baker	8	0	6	323	652	25·68	..
D Weardale W.W. (Tunstall Res.)	H. Robinson, Esq., C.E.	8	1	2	724	767	30·18	154
Weardale W.W. (Waskerley 6)	H. Robinson, Esq., C.E.	8	4	2	1229	785	30·89	..
Weardale W.W. (Waskerley 3)	H. Robinson, Esq., C.E.	8	4	6	1433	853	33·57	..
Weardale W.W. (Waskerley 4)	H. Robinson, Esq., C.E.	8	4	7	1321	768	30·24	..
Weardale W.W. (Waskerley 5)	H. Robinson, Esq., C.E.	8	4	2	1244	819	32·26	..
D Weardale W.W. (Waskerley)	H. Robinson, Esq., C.E.	8	0	11	1179	828	32·62	204
Weardale W.W. (Waskerley 2)	H. Robinson, Esq., C.E.	8	4	5	1367	791	31·15	..
Weardale W.W. (Waskerley 1)	H. Robinson, Esq., C.E.	8	4	4	1317	777	30·59	..
Fence Houses (Chilton Moor)	V. W. Corbett, Esq.	5	1	4	186	549	21·60	..
Chester-le-Street (Biddick Hall)	Mr. A. Bentley	5	1	0	150	613	24·12	..
D Ryhope Pumping Station	A. B. E. Blackburn, Esq.	8	1	1	228	558	21·99	164
D Sunderland (W. Hendon H.) No. 5	T. W. Backhouse, Esq.	5	1	0	130	626	24·63	188
Sunderland (W. Hendon H.) No. 6	T. W. Backhouse, Esq.	5	1	0	130	627	24·67	188
D Sunderland (Mowbray Park)	H. Renney, Esq., M.D.	5	1	0	105	659	25·95	166
Sunderland (Claxheugh Grove)	Ford Paper Works, Ltd.	5	2	6	90	543	21·39	..
Sunderland (Cedars End)	W. F. Vint, Esq.	5	1	0	115	561	22·08	161
Sunderland (Southwick Cemet'y)	Mr. J. R. Hodgson	8	1	0	171	599	23·59	169
3.—TYNE, LOWER. 151 sq. mi.								
D Weardale W.W. (Smiddy Shaw)	H. Robinson, Esq., C.E.	8	1	3	1128	849	33·44	216
Consett Park Farm	J. D. Brown, Esq.	5	4	3	641	634	24·96	..
Rowlands Gill (Armstrong Coll.)	J. F. Annand, Esq. per M.O.	8	1	0	445	692	27·25	189
D Sunderland (Cleadow Pump. Stn.)	A. B. E. Blackburn, Esq.	8	1	0	216	590	23·22	195
D Ryton-on-Tyne (Balgonie Ho.)	J. W. Smith, Esq., M.D.	5	1	6	258	672	26·45	168
D South Shields (Bent's Park)	Dr. D. M. Mathieson	5	1	0	36	566	22·30	184
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	1132	44·58	..
Bardon Mill (Allans Green)	J. B. Lowe, Esq.	5	3	6	1000	730	28·74	172
D Haltwhistle (Bellister Castle)	J. M. Clark, Esq.	5	1	0	380	916	36·08	173
3.—TYNE, LOWER. 227 sq. mi.								
D Corbridge (Howden Dene)	J. H. Straker, Esq.	5	0	9	200	691	27·22	199
D Hexham (Beaufront Castle)	Capt. J. H. Cuthbert, D.S.O.	8	1	0	400	711	27·98	152
Newcastle (Lit. and Phil. Soc.)	H. Richardson, Esq.	8	55	0	160	698	27·50	..
Newcastle (Westgate Street)	Newcastle Chronicle	8	30	0	148	600	23·62	..
Newcastle (Leazes Park)	F. J. Morgan, Esq.	5	1	0	255	633	24·91	..

DIVISION X.—NORTHERN COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.				Depth of Rain.		Days with 0.1 in. or more
		Diam.	Height Above Ground Sea Level			1918		
NORTHUMBERLAND—(con.)		in.	ft.	in.	feet	mm.	inches	
3.—TYNE, LOWER—(con.)								
D Newcastle (Town Moor)	.....D. C. Baldie, Esq.	5	2	0	201	694	27.33	184
Newcastle (Wellburn, Jesmond)	J. H. Holmes, Esq.	5	1	6	163	644	25.35	174
Tynemouth (Tyne Pier Works)	R. F. Hindmarsh, Esq.	5	1	8	65	663	26.09	196
Tynemouth (Coastguard Statn.)	Meteorological Office....	8	1	0	71	554	21.81	171
Whittle Dean (Newcastle W.W.)	A. L. Forster, Esq., C.E.	5	0	6	380	644	25.36	208
Whittle Dean Filters(N'stle WW	A. L. Forster, Esq., C.E.	5	1	1	353	693	27.30	196
4.—NORTH TYNE. 433 sq. mi.								
N. Tyne (G.Crag) (N'castle W.W.)	A. L. Forster, Esq., C.E.	5	1	6	896	707	27.82	..
Hallington Vill. (N'castle W.W.)	A. L. Forster, Esq., C.E.	5	1	0	467	662	26.05	..
Hallington Res. (N'castle W.W.)	A. L. Forster, Esq., C.E.	5	1	0	470	652	25.66	192
Hallington (Fawcett) Newc. WW	A. L. Forster, Esq., C.E.	5	1	2	537	652	25.69	..
Hallington (Cheviot) (Newc. WW	A. L. Forster, Esq., C.E.	5	1	2	576	641	25.24	..
Camphill (Newcastle W.W.)	...A. L. Forster, Esq., C.E.	5	1	1	650	670	26.38	..
Colt Crag (Newcastle W.W.)	..A. L. Forster, Esq., C.E.	5	1	0	654	657	25.87	185
D Bellingham (High Green Man.)	Sir C. Morrison-Bell, Bt.	5	1	0	849	844	33.23	211
Redewater (Catcleugh)	.....A. L. Forster, Esq., C.E.	5	1	0	819	1006	39.62	214
5.—COQUET & C. 840 sq. mi.								
Whittington (Newcastle W.W.)	A. L. Forster, Esq., C.E.	8	0	9	528	700	27.56	..
Burnside (Newcastle W.W.)	...A. L. Forster, Esq., C.E.	5	0	9	419	652	25.68	..
Ryal Cottage (Newcastle W.W.)	A. L. Forster, Esq., C.E.	10	0	9	463	603	23.75	..
D Morpeth (Bothalhaugh Garden)	Hon. & Rev. W. C. Ellis	5	1	10	35	644	25.35	203
M Morpeth (Bothalhaugh Garden)	Hon. & Rev. W. C. Ellis	5	1	10	35	648	25.50	..
D Morpeth (Bothalhaugh Lawn)	..Hon. & Rev. W. C. Ellis	5	1	10	137	640	25.18	203
M Morpeth (Bothalhaugh Lawn)	..Hon. & Rev. W. C. Ellis	5	1	10	137	660	25.99	..
Morpeth (Ashington)	.....W. Wilson, Esq.	5	1	0	110	610	24.00	173
D Morpeth (Cockie Park)	.....J. Procter, Esq.	8	1	0	325	681	26.82	196
Font Res (Tynemouth W.W.)	J. W. McKerrrow, Esq.	10	1	0	614	757	29.79	192
D Acklington (Broomhill Colliery)	Broomhill Collieries, Ltd.	5	7	0	92	614	24.18	163
Rothbury (Brinkburn Priory)	..Mrs. Hugh Fenwick	8	1	2	257	721	28.40	..
Rothbury (Crag-side)	.....Mr. H. Hudson	8	1	3	405	698	27.46	..
D Felton (Newton-on-the-Moor)	..J. A. Charlton, Esq.	5	1	6	500	706	27.79	179
Alnwick Castle	.....Mr. R. Kyle, per M.O.	8	0	4	210	746	29.37	189
Beal (Lowlynn)	.....H. L. Pattinson, Esq.	5	1	10	200	595	23.42	..
6.—TWEED. 262 sq. mi.								
D Glanton (Glanton Pyke Gdns.)	Mr. J. Henderson	8	4	2	521	727	28.61	200
D Ilderton (Lilburn Tower)	.....A. B. Collingwood, Esq.	10	6	0	300	538	21.17	147
D Ilderton (Lilburn Cottage)	.....N. D. Cowans, Esq.	5	1	0	340	643	25.31	187
Wooler (St. Ninians)	.....Dr. R. Walker	8	0	10	176	691	27.19	..
Wooler (Victoria House)	.....Miss E. M. Dodds	5	1	0	176	528	20.77?	..
Wooler (The Thirlings)	.....Col. J. M. W. Anderson	5	1	6	150	708	27.89	..
D Doddington Vicarage	.....Rev. J. G. Shotton	8	1	6	140	656	25.84	162
D Pawston [Coldstream]	.....late B. P. Selby, Esq.	5	1	0	327	695	27.36	179
7.—INSULAR. 1 sq. mi.								
CUMBERLAND. (Area, 1516 sq. mi.)								
1.—EDEN & SOLWAY. 887 sq. mi.								
Ullswater (Hallsteads)	.....Miss C. Marshall	5	2	0	497	1405	55.33	217
D Watermillock (Mell Fell House)	Mrs. Spring-Rice	5	1	0	980	1373	54.06	183
D Penrith (Fell Lane)	.....H. Lester, Esq.	5	1	0	575	954	37.55	198
Penrith (Sandath)	.....Major G. Varty-Smith ..	5	1	0	570	977	38.47	192

DIVISION X.—NORTHERN COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.				Depth of Rain.		Days with ·01 in. or more
		Diam.	Height Above Ground Sea Level			1918		
CUMBERLAND—(con.)		in.	ft.	in.	feet	mm.	inches	
1.—EDEN & SOLWAY—(con.)								
D Penrith (Benson House).....	A. B. Sinclair, Esq.....	5	2	4	480	1046	41·18	194
Penrith (Newton Rigg)	W. T. Lawrence, Esq. <i>pr</i> MO	8	1	0	559	1051	41·38	214
Penrith (Greystoke Castle) ...	J. Smith Hill, Esq.	5	1	3	650	1171	46·09	..
D Penrith (Ennim)	Mrs. Hamlet Riley	8	0	6	660	1101	43·34	191
D Uldale (Chapel House Res.) ...	J. Strong, Esq.	8	1	0	620	1297	51·05	203
D Penrith (Nunwick Hall)	Mrs. Heywood Thompson	5	1	0	298	922	36·30	178
D Mealsgate (Quarry Hill)	J. Ferguson, Esq. ....	..	1	0	487	1066	41·97	203
D Renwick (Ravenwood)	W. Salkeld, Esq.	5	4	0	650	1076	42·36	199
D Wigton (Brookfield)	J. Ransom Marsh, Esq.	5	2	1	124	948	37·33	202
Wigton (Woodlands)	J. Ransom Marsh, Esq.	5	1	6	..	1020	40·15	..
D Wigton (Dacre House)	J. H. Walker, Esq.	5	4	6	134	993	39·11	200
D Wreay Vicarage.....	Rev. Canon A. R. Hall	5	2	0	310	965	37·98	198
D Geltsdale.....	H. C. Marks, Esq., C.E.	5	1	2	778	894	35·18	235
D Carlisle (Spital Cemetery)	J. T. Charlton, Esq.	8	1	0	115	855	33·65	190
Carlisle (Denton Holme)	W. Eggleston, Esq.	5	2	0	57	764	30·06	..
Carlisle (Newby Grange)	Mrs. Hodgson	5	0	8	64	808	31·82	..
Carlisle (Scaleby Hall)	Sir R. A. Allison, <i>per</i> M.O.	5	1	0	112	844	33·23	186
D Penton (Warwickland School)	W. Roden, Esq.....	5	1	0	360	880	34·65	194
2.—DERWENT. 257 sq. mi.								
M Sprinkling Tarn	British Rainfall Org.....	5	1	6	1985	4219	166·10	..
M Styehed Tarn	British Rainfall Org.....	4	0	6	1472	2691	105·95	..
M The Sty B.....	British Rainfall Org.....	4	0	6	1077	4844	190·70	..
M The Sty B.... <i>Seathwaite g.</i> ..	British Rainfall Org.....	5	1	6	1070	5372	211·50	..
M The Sty C	British Rainfall Org.....	4	1	0	1077	5324	209·60	..
M The Sty D	British Rainfall Org.....	4	1	0	1077	3876	152·60	..
M Borrowdale (Seathwaite)	British Rainfall Org.....	4	0	6	422	3788	149·15	..
Borrowdale (Seathwaite)	British Rainfall Org.....	5	1	0	423	3530	138·98	..
M Ullscarf	Messrs. G. H. Hill & Sons CE	7	1	8	2100	3294	129·70	..
M Helvellyn (Birkside)	Messrs. G. H. Hill & Sons CE	7	1	3	1900	2083	82·00	..
M Wythburn	Messrs. G. H. Hill & Sons CE	7	1	4	610	2758	108·60	..
Buttermere (Hassness)	Miss C. Marshall	5	1	0	355	3133	123·33	222
Borrowdale (Grange)	Mr. J. Threlkeld	5	0	9	271	2561	100·82	..
Armboth Fells (The Pewitts) ..	Messrs. G. H. Hill & Sons CE	7	1	6	1650	2174	85·60	..
Helvellyn (Whiteside)	Messrs. G. H. Hill & Sons CE	7	1	6	2100	2019	79·50	..
Thirlmere (Dale Head Hall) ..	Messrs. G. H. Hill & Sons CE	7	1	5	620	2192	86·30	..
D Keswick (Derwent Island) <i>old g.</i>	John Marshall, Esq.	5	0	7	280	1722	67·78	244
D Keswick (Derwent Island) <i>new g.</i>	John Marshall, Esq.	5	0	6	290	1677	66·03	244
D Keswick (The Bank).....	Mr. A. Campbell	5	1	6	265	1732	68·17	227
D Keswick (Crosthwaite School)	H. Swinburn, Esq.	5	1	0	254	1647	64·84	225
D Keswick (Mirehouse)	Miss Spedding	5	1	1	320	1427	56·18	212
Cockermouth (Whinfell Hall) ..	W. Peile, Esq.	5	0	1	255	1568	61·74	..
D Cockermouth (Lorton Hall)....	Sir J. T. Hutchinson ..	5	1	0	240	1491	58·71	208
Cockermouth (Brandlingill) ...	Mrs. Sewell	5	1	0	320	1833	72·15	..
Cockermouth (Elmhurst)	Josiah Hall, Esq.	5	0	10	300	1226	48·26	..
D Cockermouth (Brigham Road) .	R. M. Lidbetter, Esq....	5	6	0	250	1235	48·61	204
D Cockermouth (Derwent Lodge) .	Wilfrid Irwin, Esq.	5	4	6	220	1101	43·33	213
D Threlkeld (Blencathra Sanat.)	Dr. W. Goodchild.....	5	1	0	885	1762	69·39	221
Camerton Vicarage	Rev. E. C. Bennett	5	1	0	200	1062	41·83	..
Bassenthwaite Vicarage	Rev. M. H. Banister	5	1	0	350	1147	45·14	..
Bassenthwaite (Higham)	Joseph Fisher, Esq.	5	0	9	500	1297	51·06	205

DIVISION X—NORTHERN COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.				Depth of Rain.		Days with ·01 in. or more
		Diam.	Height Above Ground SeaLevel			1918		
CUMBERLAND—(con.)		in. ft. in. feet				mm. inches		
3.—WEST COAST STREAMS. 235 sq. mi.								
Ravenglass (Newtown)	G. L. McKelvie, Esq.	5	1	6	130	1243	48·93	..
Ravenglass (The Grove)	Miss C. Marshall	5	2	8	77	1254	49·38	191
Eskdale Green (Gatehouse)	Miss C. Marshall	5	1	0	130	1580	62·19	223
Beckfoot	Miss C. Marshall	5	1	0	180	1666	65·60	197
D Seascale (Whinthwaite)	Dr. R. Hellon	5	1	0	52	1162	45·75	186
Netherwasdale Vicarage	Rev. J. Hodgson	5	1	0	182	1626	64·00	163
Braystones	H. H. Watson, Esq.	10	3	6	36	1148	45·18	..
D Whitehaven (Scragill Reservoir)	E. E. Stiven, Esq., C.E.	8	1	0	188	1276	50·25	208
D Whitehaven (Irish Street)	Dr. Eldon Pratt	5	1	1	21	1280	50·40	201
Distington (Gillgarran)	Mr. A. Kydd	5	4	9	470	1275	50·18	193
D Workington (Winscales House)	J. A. Trench, Esq.	5	1	6	440	1077	42·41	193
4.—DUDDON & C. 50 sq. mi.								
D Silecroft (Old Chappels)	G. H. Holt, Esq.	5	1	0	200	1608	63·32	221
5.—SOUTH TYNE. 87 sq. mi.								
D Alston (Nenthead)	Caldwell Harpur, Esq.	8	2	6	1463	1645	64·77	216
D Alston (Samuel King's School)	J. G. McIntosh, Esq.	5	1	0	1060	1041	40·97	227
WESTMORLAND (Area, 783 sq. mi.)								
1.—EDEN. 373 sq. mi.								
D Ravenstonedale (The Chantry)	Miss D. V. Highmoor	5	1	11	900	1590	62·61	233
D Kirkby Stephen (Redman Ho.)	Mrs. T. Mason	5	1	0	574	1281	50·43	176
Grizedale (Ruthwaite Lodge)	Miss C. Marshall	8	1	6	1750	3072	120·94	..
Patterdale Hall	Miss C. Marshall	5	1	3	490	2576	101·41	211
Patterdale (Greenside Mine)	W. H. Borlase, Esq.	7	1	0	1000	2335	91·93	..
D Appleby (Castle Bank)	C. R. Rivington, Esq.	5	1	2	440	1104	43·47	201
Ullswater (Sharrow Bay)	Mr. G. Robinson	5	0	7	600	1403	55·23	..
D Morland [Penrith]	Miss M. F. Markham	5	1	0	456	1092	43·01	210
2.—LEVEN. 60 sq. mi.								
Bowness (Lindeth Howe)	Captain F. G. Senior	5	1	0	250	2002	78·80	217
D Bowness (Dawstone)	A. M. Sing, Esq.	5	1	2	550	1862	73·29	226
Bowness (Fallbarrow)	Miss C. Marshall	8	1	0	155	1921	75·63	209
D Windermere (Hammar Bank)	H. Coutts, Esq.	5	1	0	290	1957	77·03	231
D Bowness (Fellside)	T. D. Lingard, Esq.	5	0	6	310	2039	80·28	214
D Windermere (Holehird)	W. G. Groves, Esq.	5	1	0	483	2140	84·27	230
D Windermere (Brockhole)	W. Gaddum, Esq.	5	1	6	175	2038	80·23	224
D Ambleside (Wansfell)	Miss Wrigley	8	1	0	150	2249	88·56	214
Ambleside (Skelwith Bridge)	Miss C. Marshall	5	1	9	190	2789	109·79	220
M Little Langdale (Feil Foot)	Miss C. Marshall	5	2	2	380	2941	115·77	..
D Ambleside (White Craggs)	C. H. Hough, Esq.	5	2	4	252	2263	89·09	232
D Ambleside (Gale House)	G. A. Johnston, Esq., M.D.	5	1	0	180	2318	91·26	222
D Ambleside (Loughrigg Brow)	I. H. Storey, Esq.	5	1	0	279	2390	94·11	233
Ambleside (Lesketh How)	Miss Benson	5	2	6	175	2407	94·78	234
Elterwater Hall	Miss C. Marshall	5	1	1	200	2579	101·53	..
Rydal (The Stepping Stones)	Gordon Wordsworth, Esq.	5	1	0	190	2472	97·32	232
M Rydal (The Stepping Stones)	Gordon Wordsworth, Esq.	5	1	3	190	2401	94·52	..
D Rydal	Miss M. Yates	5	0	7	390	2454	96·62	221
D Rydal (High Close)	F. E. T. Jones Balme, Esq.	8	0	9	553	2542	100·07	224
D Dungeon Ghyll	Miss C. Marshall	5	1	0	310	3268	128·66	237
M Dungeon Ghyll	Miss C. Marshall	5	1	0	311	3242	127·64	..
M Mickleden	Miss C. Marshall	5	1	6	490	4608	181·42	..

DIVISION X.—NORTHERN COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.				Depth of Rain. 1918	Days with ·01 in. or more
		Diam.	Height Above Ground SeaLevel				
WESTMORLAND—(con.)		in.	ft.	in.	feet	mm.	inches
2.—LEVEN—(con.)							
D Grasmere (The Wray)	Miss G. M. Simpson	5	1	0	221	2769	109·02 242
3.—KENT. 188 sq. mi.							
D Heversham (Plumtree Hall)	Miss M. C. Watson	5	0	8	115	1531	60·29 225
D Heversham (Leasgill)	T. A. Argles, Esq.	5	0	8	130	1467	57·74 232
D Kendal (Crosthwaite Vicarage)	Rev. T. Heelis	5	1	0	200	1737	68·37 205
D Kendal (Vicarage Terrace)	G. F. Braithwaite, Esq.	8	3	3	160	1563	61·55 210
D Kendal (Holmcroft)	R. Rhodes, Esq.	5	1	3	176	1502	59·12 235
D Kendal (Birchfield)	H. W. Baron, Esq.	5	1	6	175	1685	66·34 215
D Kendal (Low Slack)	A. W. Wilson, Esq.	5	1	0	350	1626	64·03 215
D Kendal (Ellergreen)	C. J. Cropper, Esq.	5	1	6	270	1836	72·29 224
D Kendal (Potter Tarn Res.)	Messrs. J. Cropper & Co Ltd	5	1	0	800	2547	100·29 ..
M Long Sleddale (Low House)	A. Wilson, Esq.	5	1	0	550	2092	82·36 ..
D Kentmere	Miss G. M. Barker . . . . .	..	..	..	..	2304	90·72 223
4.—LUNE. 122 sq. mi.							
D Kirkby Lonsdale	J. R. Picard, Esq.	7	0	8	215	1530	60·22 ..
D Kirkby Lonsdale (Casterton)	Miss Williams	5	1	6	320	1511	59·50 208
D Barbon (Underfell)	Miss C. E. Wilson	5	1	5	405	1592	62·67 209
D Barbon Manor	Lord Shuttleworth	5	1	3	650	1544	60·78 187
D Barbon	W. Wilkinson, Esq.	5	1	0	310	1529	60·21 182
D Orton	Michael Scott, Esq.	5	1	0	770	1763	69·40 232
5.—TEES. 40 sq. mi.							

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

MONMOUTH. (Area, 534 sq. mi.)

1.—RHYMNEY. 39 sq. mi.							
D Rumney (Witla Court)	Mr. J. F. Matthyssens	5	1	0	177	1158	45·58 188
2.—EBBW. 88 sq. mi.							
D Rogerstone (Brynhedydd)	Blethyn T. Rees, Esq. C.E.	5	0	8	333	1185	46·64 151
D Rogerstone (Rhiwderin)	L. Forestier-Walker Esq.	5	1	3	259	1187	46·72 189
D Abercarn (Cwmarn)	J. Williams, Esq.	12	3	2	425	1411	55·56 156
D Abertillery (The Park)	S. E. Thomas, Esq.	5	1	0	700	1519	59·79 225
D Abertillery (Cwmtillery)	W. Y. Hobkirk, Esq.	5	1	0	970	1527	60·13 211
D Tredegar Laboratory	W. Morgan, Esq.	5	1	3	950	1668	65·67 234
D Tredegar (Redesdale)	D. W. Davies, Esq.	5	1	6	963	1281	50·44 230
D Ebbw Vale (Iron Works)	D. S. Whitehead, Esq.	8	1	0	902	1532	60·33 218
D Nant-y-bwch (Shon Sheffrey's W.)	D. W. Davies, Esq.	5	1	5	1204	1379	54·29 ..
3.—USK & C. 290 sq. mi.							
D Goldcliff (Porton)	Blethyn T. Rees, Esq. C.E.	5	1	3	27	804	31·67 ..
D Portskewett (Sudbrook)	H. V. Woodward Esq. C.E.	8	0	10	22	890	35·06 ..
D Newport W.W. (Friar St. Yard)	Newport Corporation	5	6	0	32	1145	45·09 196
D Newport WW (Ynis-y-froR) old g	Newport Corporation	5	1	0	136	1112	43·76 221
D Newport WW (Ynis-y-froR) new g	Newport Corporation	5	1	0	136	1242	48·89 221
D Newport WW (Pant-y-reosR.) new	Newport Corporation	5	1	0	435	1292	50·86 220
D Newport WW (Pant-y-reosRes) old	Newport Corporation	5	1	0	435	1517	59·74 220
D Newport WW (Llanvaches)	Newport Corporation	5	0	10	456	1109	43·67 210
D Newport WW (Nantypriidd)	Newport Corporation	5	1	0	500	1151	45·32 203
D Chepstow (Itton Court)	Col. E. Curre	5	1	0	390	1045	41·14 190
D Llanfrehfa Grange	Maj.-Gen. W. F. Cleeve	5	4	0	326	1209	47·59 190

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

STATIONS.	AUTHORITIES.	Rain Gauge.		Depth of Rain. 1918	Days with 0.1 in. or more			
		Diam.	Height Above Ground Sea Level					
MONMOUTH—(con.)		in.	ft. in.	feet	mm.	inches		
3.—USK & C—(con.)								
D Newport W.W. (Newchurch) ..	Newport Corporation ..	5	1	0	550	1195	47.06	202
D Usk (Castle Parade House) ...	J. Maitland Watkins, Esq. ...	5	1	0	75	1023	40.29	178
Abersychan (Snatchwood Park) ..	Monmouth Evening Post ..				529	1440	56.68	225
Abersychan (Glansychan)	G. W. James, Esq., per M.O. ...	5	1	0	699	1446	56.93	231
D Little Mill (Monmouth Reform.)	F. E. Craven Jones, Esq. ...	5	1	0	300	1054	41.51	151
D Goytre (Goytre Hall)	Mrs. Lionel Whitehead ..	9	1	2	300	1196	47.10	194
Blaenavon (Estate Office)	H. G. Steel, Esq.	8	4	6	1150	1660	65.37	..
D Abergavenny	F. Mansfield, Esq.	5	1	0	194	1010	39.78	157
D Abergavenny (Larchfield)	Dr. N. R. Phillips	5	1	0	240	947	37.28	190
D Abergavenny (The Chain)	W. Baker Gabb, Esq. ...	5	1	0	310	983	38.69	201
D Grwyne Fawr (Coed Dias)	W. Baker Gabb, Esq. ...	5	1	0	900	1288	50.70	225
4.—WYE. 117 sq. mi.								
Chepstow (The Cedars)	J. E. G. Lawrence, Esq. ...	5	2	0	150	937	36.90	177
D Chepstow (Piercefield Park) ...	H. Clay, Esq.	5	1	6	310	1004	39.54	179
Monmouth (The Elms)	Mrs. Hall	5	1	1	91	662	26.05	..
D Monmouth (Pentwyn)	Rev. Canon J. Harding ..	9	1	0	191	805	31.69	179
D Llanvihangel Crucorney Depôt	J. F. Jupp, Esq., C.E. ...	5	1	0	501	935	36.81	196
D Llanthony (New House Farm) ..	Mr. J. Pritchard	5	1	0	824	1358	53.45	220
GLAMORGAN. (Area, 808 sq. mi.)								
1.—LOUGHOR. 55 sq. mi.								
D Gorseinon (Penllergaer)	Sir J. T. D. Llewelyn, Bt. ...	5	3	0	240	1369	53.90	213
D Felindre (Lower Lliw Res.) ...	Lt. G. R. Collinson, R.E. ...	8	1	3	426	1432	56.39	222
D Felindre (Upper Lliw Res.) ...	Lt. G. R. Collinson, R.E. ...	8	1	3	600	1778	70.02	244
2.—GOWER PENINSULA. 62 sq. mi.								
Penmaen (Cefn Mor)	Mrs. Bostock	5	1	5	300	1168	45.97	190
D Swansea (Killay House)	Mrs. M. B. Williams ...	5	0	6	265	1420	55.91	212
3.—TAFE. 47 sq. mi.								
Swansea (Victoria Park)	Mr. D. Bliss	8	1	0	26	1447	56.98	225
D Swansea (The Knoll)	E. H. Perkins, Esq.	5	1	0	150	1406	55.36	217
Morryston	M. W. Williams, Esq. ...	5	1	0	125	1638	64.48	217
Pontardawe (Plas Cilybebyll) ..	J. H. B. Lloyd, Esq. ...	5	3	0	510	1885	74.22	..
D Ystalyfera (Wern School)	J. Williams, Esq.	5	1	3	240	1894	74.55	232
4.—NEATH. 82 sq. mi.								
D Briton Ferry (Brynsiriol)	H. A. Clarke, Esq., C.E. ...	5	1	0	33	1386	54.57	190
Briton Ferry (Cefn Court)	H. A. Clarke, Esq., C.E. ...	5	1	0	503	1481	58.30	205
D Neath	D. M. Jenkins, Esq., C.E. ...	5	1	0	204	1694	66.70	201
D Neath (Maesmelyn)	Major E. Ll. Green	5	1	6	115	1529	60.20	211
Neath (Glynfeln)	T. Gibbins, Esq.	5	1	4	180	1691	66.58	180
5.—OGMORE & C. 350 sq. mi.								
D Cowbridge (Fonmon Castle) ..	Mrs. Oliver Jones	8	1	2	130	1078	42.44	156
D Barry W.W. (Biglis)	T. E. Franklin, Esq., C.E. ...	5	1	0	20	1215	47.85	192
Barry W.W. (Merthyr Dyfan Rs) ..	T. E. Franklin, Esq., C.E. ...	5	1	0	300	1043	41.07	..
Barry W.W. (Pencoedtre Res.) ..	T. E. Franklin, Esq., C.E. ...	5	1	0	200	1131	44.53	..
Barry W.W. (Dinas Powis Res.) ..	T. E. Franklin, Esq., C.E. ...	5	1	0	165	1288	50.71	..
D Lower Penarth	E. I. Evans, Esq., C.E. ...	5	1	0	67	1050	41.32	177
D Penarth	E. I. Evans, Esq., C.E. ...	5	5	0	160	1207	47.53	193
D Cardiff (Cogan Pumping Stat.) ..	C. H. Priestley, Esq., C.E. ...	5	1	0	121	1037	40.83	186
D Cardiff (Ely Pumping Station) ..	C. H. Priestley, Esq., C.E. ...	5	1	0	53	1214	47.78	244
D Cardiff (St. Fagans)	Capt. H. A. Pettigrew ..	5	0	11	100	1402	55.20	206

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

STATIONS.	AUTHORITIES.	Rain Gauge.				Depth of Rain.		Days with ·01 in. or more
		Diam.	Height Above Ground Sea Level			1918		
GLAMORGAN—(con.)		in.	ft.	in.	feet	mm.	inches	
5.—OGMORE & C.—(con.)								
Cowbridge (Ash Hall)	E. Tudor Owen, Esq. . .	8	3	0	315	1383	54·45	205
Merthyr Mawr	Lt. Col. J. D. Nicholl <i>pr</i> M.O. . .	..	..	..	74	1299	51·15	196
D Bridgend (Highmead)	H. J. Randall, Esq.	5	1	0	70	1299	51·15	199
D Llantrisant (Talygarn)	W. D. Clark, Esq.	5	4	3	250	1668	65·68	206
D Port Talbot (Twyn-yr-hydd) ...	G. Lipcomb, Esq.	5	1	0	180	1242	48·90	211
6.—TAFF. 157 sq. mi.								
D Cardiff (Trade Street Dépôt) ..	C. H. Priestley, Esq., C.E. .	5	1	0	45	1260	49·61	194
D Llandaff (West Hill)	J. E. Gladstone, Esq. . .	5	1	0	110	1295	51·00	226
Pontypridd (Maesderwen)	T. Bowen, Esq.	5	6	0	425	1577	62·10	216
D Pontypridd (Lan Wood Res.) .	T. W. Coates, Esq., C.E. .	5	1	0	300	1565	61·60	214
D Ystradyfodwg (Tyntyla Hospital)	J. D. Jenkins, Esq., M.D. .	5	1	0	590	1462	57·56	189
D Treharris Service Reservoir ...	T. F. Harvey, Esq., C.E. .	5	1	0	865	1545	60·84	217
D Mountain Ash (Maesydderwen)	Lieut.-Col. M. Morgan ..	5	1	0	483	1592	62·66	208
D Mountain Ash (Darranlas Res.)	W. G. Thomas, Esq.	5	0	11	540	1849	72·79	233
D Treherbert (Bute Merthyr Coll.)	W. Jenkins, Esq.	5	1	0	670	2458	96·78	241
D Treherbert (Tyn-y-waun)	O. Thomas, Esq.	5	1	0	801	2538	99·91	241
M Treherbert (Tyn-y-waun)	O. Thomas, Esq.	5	1	0	801	2522	99·28	..
D Rhondda (Pont Lluest Wen R.) 3	T. W. Coates, Esq., C.E. .	5	1	6	1200	2270	89·37	219
D Rhondda (Pont Lluest Wen R.) 2	T. W. Coates, Esq., C.E. .	5	1	6	1225	1720	67·70	219
D Rhondda (Pont Lluest Wen R.) 1	T. W. Coates, Esq., C.E. .	5	1	6	1250	2431	95·72	219
D Rhondda W.W. (Llyn Fawr Res.)	Mr. J. B. Hughes	8	1	0	1220	2537	99·87	235
D Merthyr Tydfil (Penbryn Filters)	T. F. Harvey, Esq., C.E. .	5	1	0	936	1460	57·50	238
M Merthyr Tydfil (Penbryn Filters)	T. F. Harvey, Esq., C.E. .	5	1	0	936	1442	56·77	..
D Dowlais (Gwernllwyn)	R. C. Harrison, Esq.	5	1	6	1071	1354	53·30	210
7.—RHYMNEY. 55 sq. mi.								
D Cardiff (Roath Park)	Mr. A. A. Pettigrew	5	0	9	49	1233	48·53	211
D Cardiff (Penylan)	E. Walford, Esq., M.D. . .	5	1	0	204	1289	50·76	213
D Cardiff (Heath Filters)	C. H. Priestley, Esq., C.E. .	5	1	0	132	1222	48·12	207
D Llanishan Reservoir	C. H. Priestley, Esq., C.E. .	5	1	0	155	1157	45·56	203
D Lisvane Reservoir	C. H. Priestley, Esq., C.E. .	5	1	0	150	1034	40·71	199
Caerphilly (Deneholme)	J. Prosser-Jones, Esq., C.E. .	5	1	0	400	1421	55·95	..
D Rhymney Bridge Reservoir	J. Prosser-Jones, Esq., C.E. .	8	1	0	1098	1515	59·65	200
CARMARTHEN. (Area, 918 sq. mi.)								
1.—TEIFI. 87 sq. mi.								
Llanybyther (W. Wales San.) ...	D. C. Lloyd, Esq.	5	1	0	785	1181	46·50	..
2.—TOWY & C. 715 sq. mi.								
D Laugharne (Broadway)	H. Eccles, Esq.	5	2	0	174	1322	52·03	198
Llanddarog (Lletherllestry) ...	H. L. Puxley, Esq.	4	1	0	242	1596	62·83	220
D Carmarthen (The Friary)	I. M. Bowen-Jones, Esq. .	5	1	5	62	1394	54·88	243
Llandilo (Golden Grove Gdns.)	Mr. F. Surman	6	1	6	125	1571	61·86	213
D Llandilo (Dynevor Castle)	Lord Dynevov	8	1	0	202	1400	55·10	240
D Llandilo (Cwmifor School)	T. I. Griffiths, Esq.	5	1	0	210	1258	49·52	233
D Llanddeusant (Pontcrynfe)	J. Thomas, Esq.	5	1	0	323	1547	60·92	213
D Llandovery (Nantyalwygfaen) .	D. T. M. Jones, Esq. ...	5	1	0	249	1449	57·06	232
D Llanwrda (Dolaucothy)	Lady Hills-Johnes	5	2	6	498	1618	63·72	259
3.—LOUGHOR & C. 104 sq. mi.								
D Llanelly (Old Market Yard) ...	G. Watkeys, Esq., C.E. . .	5	12	0	35	1381	54·36	214
D Llanelly (Cwmlledi W.W.)	G. Watkeys, Esq., C.E. . .	5	2	3	240	1530	60·23	238

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

STATIONS.	AUTHORITIES.	Rain Gauge.				Depth of Rain. 1918	Days with ·01 in. or more
		Diam.	Height Above Ground SeaLevel				
CARMARTHEN—(con.)		in.	ft.	in.	feet	mm.	inches
3.—LOUGHOR & C—(con.)							
D Ammanford (Wernolen)	.....E. Hewlett, Esq.	5	0	8	185	1524	59·98 228
4.—TAWE. 7 sq. mi.							
5.—USK. 5 sq. mi.							
6.—WYE.							
PEMBROKE. (Area, 617 sq. m.)							
1.—TEIFI. 37 sq. mi.							
2.—NEVERN & C. 91 sq. mi.							
D Fishguard (Goodwick Station)	.G. Lambert Gibson, Esq.	5	7	4	57	1159	45·62 203
D Newport (Llwyngwair)	.....G. B. Bowen, Esq.	8	1	1	40	1315	51·77 207
3.—WEST COAST STREAMS. 82 sq. mi.							
St. Davids	.....J. Morgan Williams, Esq.	5	1	0	216	1045	41·15 183
4.—CLEDDAU & C. 407 sq. mi.							
Pembroke (Stackpole Court)	..Mr. W. B. Fisher.....	6	1	6	60	1074	42·30 203
D Tenby (Lexden House)	.....Dr. E. M. R. Bryant ...	5	on roof		76	1150	45·28 205
Tenby (Glendower)	.....late J. T. C. Burgess Esq.	5	1	6	70	1278	50·31 206
St. Ann's Head	.....Meteorological Office ..	8	0	8	150	948	37·32 216
D Pembroke (R.A.F. Station)	...The Air Ministry	8	1	0	103	1085	42·73 212
D Pembroke (Bangeston)	.....Comm.P.C.Pearson,R.N.	5	1	0	40	1236	48·68 211
D Pembroke Dock (Admiralty R.)	W. T. Caldicott, Esq.....	8	1	0	90	1009	39·74 189
D Pembroke Dock(CountySchool)	J. H. Garnett, Esq.	5	1	0	85	1169	46·01 193
D Saundersfoot (Hean Castle)	...Lord Merthyr.....	5	1	0	206	1127	44·37 186
D Templeton (Hill)	.....Mrs. E. L. B. Allen	5	1	0	545	1626	64·01 250
Haverfordwest (Picton Castle)	Sir C. E. G. Philipps, Bt.	5	0	10	138	1335	52·56 220
D Haverfordwest (Portfield)	.....J. W. Phillips, Esq.	5	1	0	220	1309	51·55 225
D Haverfordwest	.....J. W. Phillips, Esq.	5	1	0	95	1333	52·49 216
Haverfordwest (Poyston)	.....late Dr. Henry Owen ..	..	..	..	125	1217	47·90 ..
Penffordd Council School	....Thomas H. Davies, Esq.	5	1	0	317	1272	50·06 ..
D Treffgarne Hall	.....Col. R. O. Lloyd,C B.,R E.	5	1	1	286	1231	48·47 212
D Fishguard (Langton,Dwrbach)	J. C. Yorke, Esq.	5	1	0	320	1450	57·08 228
CARDIGAN. (Area, 688 sq. mi.)							
1.—DOVEY. 20 sq. mi.							
2.—YSTWYTH & C. 347 sq. mi.							
D Lampeter (Llanlear)	.....Miss Lewes	5	1	1	226	1192	46·94 217
D Strata Florida (Hafod)	.....T. J. Waddingham, Esq.	5	1	0	580	1602	63·05 240
Aberystwyth (Castle Grounds)	Dr. A. Thomas	8	1	0	59	918	36·16 200
Aberystwyth (North Parade)	..Dr. A. Thomas	8	2	6	15	1045	41·13 200
D Aberystwyth (Gogerddan)	....Mr. R. Winstanley	5	1	1	83	1417	55·79 203
3.—TEIFI. 260 sq. mi.							
D Lampeter (Falcondale)	.....Mr. W. Taylor	5	1	0	498	1278	50·31 221
4.—TOWY. 46 sq. mi.							
D Nantneuadd [Abergwesyn]	....Mr. W. Roberts	5	1	0	1290	2010	79·15 186
M Tregaron (Maes-y-bettws)	.....British Rainfall Org. ..	5	1	0	910	1933	76·10 ..
Strata Florida (Towy-fechan)	..British Rainfall Org. ..	5	1	0	1330	2210	87·00 ..
5.—WYE. 15 sq. mi.							
M BirminghamW.W.(Llyn Gynon)	E. Antony Lees, Esq. ..	5	1	0	1500	1942	76·44 ..
M BirminghamWW(Bwlchyrhendre)	E. Antony Lees, Esq. ..	5	1	0	1585	1920	75·60 ..
M Birmingham (Claerddu)	.....E. Antony Lees, Esq. ..	5	1	0	1500	2123	83·60 ..
M Birmingham W.W. (Gwngu)	..E. Antony Lees, Esq. ..	5	1	0	1650	2092	82·38 ..

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

STATIONS.	AUTHORITIES.	Rain Gauge.				Depth of Rain. 1918	Days with ·01 in. or more	
		Diam.	Height Above Ground Sea Level					
CARDIGAN—(con.)		in. ft. in. feet				mm. inches		
5.—WYE—(con.)								
D Birmingham WW (Abergwngu)	E. Antony Lees, Esq.	5	1	0	1200	1914	75·35	189
M Plynlimon	British Rainfall Org.	5	1	0	1740	3287	129·40?	..
BRECON. (Area, 733 sq. mi.)								
1.—TOWY. 17 sq. mi.								
2.—TAWE. 41 sq. mi.								
D Swansea W.W. (Nantyrwydd)	Lt. G. R. Collinson, R.E.	5	1	0	916	1924	75·75	236
3.—NEATH. 48 sq. mi.								
Pont Neath Vaughan [Glyn Neath]	Mssrs. Curtis & Harvey Ltd	5	1	5	297	1603	63·10	220
Ystradfellte Reservoir	D. M. Davies, Esq.	5	1	0	1147	2311	90·98	231
4.—TAFF. 48 sq. mi.								
D Nanthir Reservoir [Aberdare]	O. Williams, Esq., C.E.	5	1	0	860	1655	65·14	239
M Nanthir Reservoir [Aberdare]	O. Williams, Esq., C.E.	5	1	0	860	1660	65·36	..
Penderyn	F. W. La T. Bateman Esq. C.E.	5	1	0	1003	1116	43·95	..
D Taff Fechan (Pontsticill) No. 12	T. F. Harvey, Esq., C.E.	5	1	0	1031	1407	55·39	230
M Taff Fechan (Pontsticill) No. 12	T. F. Harvey, Esq., C.E.	5	1	0	1031	1402	55·20	..
M Taff Fechan (Pontsticill West) 14	T. F. Harvey, Esq., C.E.	5	1	0	1254	1508	59·36	..
M Taff Fechan (Pontsticill East) 13	T. F. Harvey, Esq., C.E.	5	1	0	1763	1377	54·20	..
D Cardiff W.W. (Llwynon Res.)	C. H. Priestley, Esq., C.E.	5	1	0	860	1555	61·21	230
Cardiff W.W. (Troedyrhiw)	C. H. Priestley, Esq., C.E.	5	1	0	860	1690	66·53	..
D Cardiff W.W. (Pont-ar-daf)	C. H. Priestley, Esq., C.E.	5	1	0	850	1724	67·89	231
Cardiff W.W. (Garw-nant)	C. H. Priestley, Esq., C.E.	5	1	0	1100	1888	74·33	..
Cardiff W.W. (Nant-Gwineu)	C. H. Priestley, Esq., C.E.	5	1	0	1275	1430	56·28	..
Cardiff W.W. (Nant-y-gou-garn)	C. H. Priestley, Esq., C.E.	5	1	0	..	2155	84·86	..
D Taff Fechan (Pentwyn Res.)	T. F. Harvey, Esq., C.E.	5	1	0	1120	1780	70·07	246
M Taff Fechan (Pentwyn Res.)	T. F. Harvey, Esq., C.E.	5	1	0	1120	1770	69·67	..
Cardiff W.W. (Nant Goch)	C. H. Priestley, Esq., C.E.	5	1	0	..	1302	51·25	..
Cardiff W.W. (Nant Dhu)	C. H. Priestley, Esq., C.E.	5	1	0	1560	1977	77·85	..
Cardiff WW (Storey Arms) No. 4	C. H. Priestley, Esq., C.E.	5	1	0	1430	1798	70·77	..
Cardiff WW (Tyle Brith) No. 1	C. H. Priestley, Esq., C.E.	5	1	0	2350	2197	86·48	..
D Cardiff WW (Cantref R.) No. 2	C. H. Priestley, Esq., C.E.	5	1	0	1120	1997	78·61	237
D Cardiff WW (Beacons Res.) No. 6	C. H. Priestley, Esq., C.E.	5	1	0	1340	2079	81·86	241
Cardiff WW (Nant Penig) No. 3	C. H. Priestley, Esq., C.E.	5	1	0	2000	2572	101·24	..
D Taff Fechan (Neuadd Rs.) No. 1	T. F. Harvey, Esq., C.E.	5	1	0	1462	2048	80·61	244
M Taff Fechan (Neuadd Rs.) No. 1	T. F. Harvey, Esq., C.E.	5	1	0	1462	1928	75·89	..
D Taff Fechan (Neuadd Rs.) No. 4	T. F. Harvey, Esq., C.E.	5	1	0	1487	2290	90·15	244
D Taff Fechan (Neuadd Rs.) No. 4A	T. F. Harvey, Esq., C.E.	5	1	0	1487	2270	89·36	244
M Taff Fechan (Neuadd Rs.) No. 2	T. F. Harvey, Esq., C.E.	5	1	0	1993	1794	70·63	..
M Taff Fechan (Neuadd Rs.) No. 5	T. F. Harvey, Esq., C.E.	5	1	0	1515	2195	86·40	..
M Taff Fechan (Neuadd Rs.) No. 10	T. F. Harvey, Esq., C.E.	5	1	0	1700	2034	80·10	..
D Taff Fechan (Neuadd Rs.) No. 11	T. F. Harvey, Esq., C.E.	5	1	0	1524	1842	72·52	244
M Taff Fechan (Neuadd Rs.) No. 7	T. F. Harvey, Esq., C.E.	5	1	0	2017	2314	91·09	..
M Taff Fechan (Neuadd Rs.) No. 8	T. F. Harvey, Esq., C.E.	5	1	0	1723	2412	94·98	..
M Taff Fechan (Neuadd Rs.) No. 3	T. F. Harvey, Esq., C.E.	5	1	0	1843	1791	70·51	..
M Taff Fechan (Neuadd Rs.) No. 3A	T. F. Harvey, Esq., C.E.	5	1	0	1843	1808	71·18	..
M Taff Fechan (Neuadd Rs.) No. 9	T. F. Harvey, Esq., C.E.	5	1	0	1997	1583	62·33	..
M Taff Fechan (Neuadd Rs.) No. 6	T. F. Harvey, Esq., C.E.	5	1	0	2099	2647	104·21	..
5.—RHYMNEY. 2 sq. mi.								
6.—EBBW. 7 sq. mi.								
D Ebbw Vale WW (Llangunider) 1	T. J. Thomas, Esq. C.E.	5	1	0	1413	1567	61·69	224

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

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain. 1918	Days with ·01 in. or more
		Diam.	Height Above Ground Sea Level			
BRECON—(con.)		in.	ft.	in. feet	mm.	inches
6.—EBBW—(con.)						
Ebbw V. W. W. (Llangunider) W 3	T. J. Thomas Esq., C.E.	5	1	0 1468	1736	68·34 223
Ebbw V. W. W. (Llangunider) NW 2	T. J. Thomas, Esq., C.E.	5	1	0 1471	1680	66·15 224
Ebbw Vale W. W. (Carno, S.)	T. J. Thomas, Esq., C.E.	5	1	0 1236	1836	72·29 218
Ebbw Vale W. W. (Carno, E.)	T. J. Thomas, Esq., C.E.	5	1	0 1391	1755	69·09 218
Ebbw Vale W. W. (Carno, W.)	T. J. Thomas, Esq., C.E.	5	1	0 1412	1837	72·31 218
Ebbw Vale W. W. (Carno, N.)	T. J. Thomas, Esq., C.E.	5	1	0 1533	1783	70·20 218
7.—USK. 299 sq. mi.						
D Crickhowell (Glanusk Park)	Lord Glanusk	5	1	0 290	1132	44·57 210
D Crickhowell (Gwernvale)	F. Pirie Gordon, Esq.	5	1	0 393	1058	41·65 209
D Swansea W. W. (Bwlch)	Lt. G. R. Collinson, R.E.	8	1	0 1246	2835	111·61 244
D Swansea W. W. (Cray Res.) No. 1	Lt. G. R. Collinson, R.E.	5	1	0 1030	1848	72·74 239
M Swansea W. W. (Cray Res.) No. 2	Lt. G. R. Collinson, R.E.	5	1	0 1015	2258	88·88 ..
D Talybont (Pentir-rhiw)	Newport Corporation	5	1	0 587	1568	61·73 214
Talybont (Pwll Ifor)	Newport Corporation	5	1	0 1224	1778	70·00 ..
D Brecon (New Inn)	Mr. W. Williams	5	1	0 810	1455	57·28 167
M Cray Station	Mr. J. Jones	5	1	0 930	2144	84·40 ..
M Crickhowell (Cwmdu)	Rev. W. A. Davies	5	1	0 430	963	37·90 ..
Llanfrynach (Tymawr)	Mess D. de Winton	5	1	0 450	1055	41·54 187
M Crickhowell (Tal-y-maes)	British Rainfall Org.	5	1	0 1250	1407	55·40 ..
D Trecastle (Blaenau-hydr)	British Rainfall Org.	5	1	0 1070	1853	72·96 164
Sennybridge (Llwyn-cyntefn)	Mrs. Garnons-Williams	5	1	4 640	1298	51·10 195
Brecon (Ffrwdgrech)	Capt. J. D. D. Evans	8	1	1 570	1251	49·24 208
D Black Mountains (Blaen-y-cwm)	J. F. Jupp, Esq., C.E.	5	1	0 1423	1660	65·35 218
D Black Mountains (Blaen-y-cwm)	J. F. Jupp, Esq., C.E.	5	1	0 ..	1491	58·69 211
Black Mountains (Waun Fach)	J. F. Jupp, Esq., C.E.	5	1	0 2650	1506	59·28 ..
Black Mts. (Cwm Grigys Uchaf)	J. F. Jupp, Esq., C.E.	5	1	0 1980	1579	62·15 ..
D Black Mts. (Dam Site Grwyne Fawr)	J. F. Jupp, Esq., C.E.	5	1	0 1620	1626	64·02 224
D Black Mountains (AberClyd)	J. F. Jupp, Esq., C.E.	5	1	0 1880	1400	55·13 221
Black Mts. (Pen-y-Manllwyn)	J. F. Jupp, Esq., C.E.	5	1	0 2512	1260	49·59 ..
Black Mts. (Taren-yr-Esgob)	J. F. Jupp, Esq., C.E.	5	1	0 2039	1317	51·86 ..
Black Mts. (Twyn Tal-y-Cefn)	J. F. Jupp, Esq., C.E.	5	1	0 2130	1264	49·75 ..
Black Mts. (Blaen Grwyne Fawr)	J. F. Jupp, Esq., C.E.	5	1	0 2150	1353	53·27 ..
Upper Chapel (Tymawr)	Mrs. Probert	5	1	0 945	1265	49·80 ..
8.—WYE. 271 sq. mi.						
D Cathedine Rectory	Rev. D. H. Picton	5	1	0 660	880	35·00 190
Capel-y-ffin (Monastery)	Mr. J. Pritchard	5	1	0 1047	1152	45·35 ..
D Talgarth (Dan-y-garth)	F. Morgan, Esq.	5	4	0 404	753	29·65 160
D Gwernyted [Glasbury]	Mrs. Glen Kidston	5	1	0 375	751	29·56 207
D Llanwrtyd Wells (Brynonen)	Rhys D. Jones, Esq.	5	1	0 702	1504	59·21 237
D Builth Wells (Tyn-y-berllan)	Dr. W. Black Jones	5	1	0 430	979	38·54 215
M Abergwesyn (Trallwn)	British Rainfall Org.	5	1	0 1000	2216	87·25 ..
M Pengraig [Newbridge]	British Rainfall Org.	5	1	0 960	1654	65·10 ..
D Llys-dinam [Newbridge]	Col. C. Venables-Llewelyn	5	1	3 646	1264	49·76 225
M Birm'gham W. W. (Cors-yr-hwch)	E. Antony Lees, Esq.	5	1	0 1775	2607	102·64 ..
M Birm'gham W. W. (Esgair Ceiliog)	E. Antony Lees, Esq.	5	1	0 1525	1953	76·88 ..
M Birm'gham W. W. (Llyn-Carw)	E. Antony Lees, Esq.	5	1	0 1775	2361	92·95 ..
M Birmingham W. W. (Nant-y-car)	E. Antony Lees, Esq.	5	1	0 1545	2218	87·32 ..
M Birm'gham W. W. (Esgair Garthen)	E. Antony Lees, Esq.	5	1	0 1600	2053	80·82 ..
D Birm'gham W. W. (Elan Village)	E. Antony Lees, Esq.	5	1	0 700	1550	61·01 217

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

STATIONS.	AUTHORITIES.	Rain Gauge.		Depth of Rain. 1918	Days with 101 in. or more
		Diam.	Height Above Ground Sea Level		
RADNOR. (Area, 474 sq. mi.)		in.	ft. in.	feet	mm. inches
1.—WYE. 424 sq. mi.					
D Boughrood Castle (R)	Hon. F. G. Morgan	8	1 0	400	984 38·74 193
D Glasbury-on-Wye (Hampton Sc)	Rev. D. C. Lloyd	5	1 0	274	893 35·17 191
Welfield [Builth]	Capt. E. A. Thomas	5	1 10	740	1177 46·33 ..
Builth Rd. (St. John's Vicarage)	Rev. J. L. Bryans	5	0 11	550	1102 43·40 199
D Llandrindod Wells (Kimberley)	W. B. de Winton Esq., C.I.E.	5	1 0	699	1085 42·72 236
D Presteign (St. Davids)	Dr. N. Y. Lower	5	1 0	500	902 35·51 196
D Birmingham WW (Tyrmynydd)	E. Antony Lees, Esq.	5	1 0	832	1613 63·49 213
D Birmingham WW (Nantgwillt)	E. Antony Lees, Esq.	5	1 0	845	1752 68·97 214
M Birmingham WW (Dwfnant)	E. Antony Lees, Esq.	5	1 0	1050	1903 74·91 ..
M Birm'gham WW (Esgair Gader) 1	E. Antony Lees, Esq.	5	1 0	1500	1990 78·36 ..
M Birm'gham WW (Esgair Gader) 2	E. Antony Lees, Esq.	5	1 0	1500	2044 80·46 ..
D Birmingham W.W. (Claerwen)	E. Antony Lees, Esq.	5	1 0	1250	1995 78·55 216
D Birmingham W.W. (Tynant)	E. Antony Lees, Esq.	5	1 0	1250	1740 68·51 210
Rhayader	E. Antony Lees, Esq.	5	1 0	700	1255 49·40 ..
Rhayader	John Jones, Esq., <i>per</i> M.O. . . . .	..	..	757	1274 50·16 250
Rhayader (Vicarage)	Rev. George Roberts	5	1 0	740	1489 58·63 177
M Birm'gham WW (Cerrigllwydion)	E. Antony Lees, Esq.	5	1 0	1700	2258 88·88 ..
M Birm'gham WW (Pen-y-gareg)	E. Antony Lees, Esq.	5	1 0	1500	1551 61·05 ..
M Birmingham W.W. (Calettwr)	E. Antony Lees, Esq.	5	1 0	1500	1992 78·44 ..
M Birmingham W.W. (Figin) No. 1	E. Antony Lees, Esq.	5	1 0	1700	2364 93·05 ..
M Birmingham W.W. (Figin) No. 2	E. Antony Lees, Esq.	5	1 0	1700	2415 95·07 ..
M Birmingham WW (Aberhenllan)	E. Antony Lees, Esq.	5	1 0	1250	1737 68·38 ..
Llanbister (Llananno)	British Rainfall Org.	5	1 0	900	1206 47·50 ..
2.—SEVERN—Right Bank Tributaries. 50 sq. mi.					
Knighton (Upper Woodhouse)	S. Wilson, Esq.	5	1 0	850	992 39·05 ..
MONTGOMERY. (Area, 797 sq. mi.)					
1.—DOVEY. 120 sq. mi.					
D Machynlleth (The Plas)	Mr. A. Gribble	5	1 0	41	1700 66·93 215
2.—YSTWYTH. 7 sq. mi.					
3.—WYE. 37 sq. mi.					
D Llangurig (Dernol)	British Rainfall Org.	5	1 0	870	1588 62·50 214
4.—SEVERN—Right Bank Tributaries. 154 sq. mi.					
D Llandinam (Plas Dinam)	Mr. D. Bowen	5	3 0	503	945 37·20 172
Dolfor (Old Court)	S. Wilson, Esq.	5	1 0	1050	987 38·87 ..
Bishops Moat [Bishops Castle]	S. Wilson, Esq.	5	1 0	1130	889 34·99 ..
D Newtown (Penarth Weir)	G. R. Jebb, Esq., C.E.	8	1 0	321	891 35·08 228
D Welshpool (Edderton Hall)	Miss A. M. Howell Evans	5	1 0	500	803 31·61 185
5.—SEVERN—Left Bank Tributaries. 479 sq. mi.					
Berriew (Brithdir Hall)	F. E. Marston, Esq.	5	2 0	350	863 33·99 187
Welshpool (County School)	W. D. Lewis, Esq.	5	1 0	252	756 29·75 199
D Welshpool (Fron Llwyd)	Mrs. Harrison	5	1 0	500	929 36·58 190
M Garthbibio (Bwlch Tomlyd)	British Rainfall Org.	5	1 0	1370	1486 58·50 ..
D Llandysilio Rectory	Rev. H. G. Dickinson	5	1 0	225	776 30·53 168
D Lake Vyrnwy	E. J. Bradley, Esq.	5	0 7	770	1717 67·59 210
Lake Vyrnwy (Bryn Gwyn)	J. R. Davidson, Esq., C.E.	8	1 0	1311	1672 65·82 ..
D Lake Vyrnwy (Bank Cynon Isaf)	J. R. Davidson, Esq., C.E.	8	1 0	750	1692 66·60 209
Lake Vyrnwy (Ty Uchaf)	J. R. Davidson, Esq., C.E.	8	1 0	860	1688 66·46 ..
L. Vyrnwy (Heol-y-ffridd) No. 1	J. R. Davidson, Esq., C.E.	8	1 0	912	2250 88·57 ..
L. Vyrnwy (Heol-y-ffridd) No. 2	J. R. Davidson, Esq., C.E.	8	1 0	912	2107 82·96 ..

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

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain. 1918	Days with ·01 in or more
		Diam.	Height Above Ground Sea Level			
MONTGOMERY—(con.)		in. ft. in. feet			mm.	inches
5.—SEVERN—Left Bank Tributaries—(con.)						
Lake Vyrnwy (Tyn-y-ffridd) .. J. R. Davidson, Esq., C.E.	8	1	0	1010	1580	62·21 ..
Lake Vyrnwy (Lluestwen) J. R. Davidson, Esq., C.E.	8	1	0	1637	2137	84·14 ..
Lake Vyrnwy (Llwynrhiw) J. R. Davidson, Esq., C.E.	8	1	0	1428	2503	98·56 ..
Lake Vyrnwy (Craig-y-Gribbin) . J. R. Davidson, Esq., C.E.	8	1	0	1100	1875	73·81 ..
Lake Vyrnwy (Eunant Bridge) . J. R. Davidson, Esq., C.E.	8	1	0	830	2202	86·71 ..
Lake Vyrnwy (Carreg Goch) .. J. R. Davidson, Esq., C.E.	8	1	0	1750	2087	82·15 ..
Lake Vyrnwy (Fawnog) J. R. Davidson, Esq., C.E.	8	1	0	1315	1669	65·70 ..
FLINT. (Area, 256 sq. mi.)						
1.—DEE. 198 sq. mi.						
D Hanmer (Gredington) Lord Kenyon, K.C.V.O. .	5	0	10	300	884	34·82 167
D Overton (Fairleigh) B. J. E. Wright, Esq. ...	5	1	8	220	793	31·22 192
Buckley W. Simmons, Esq.	5	1	0	555	748	29·47 ..
Cilcain W. Simmons, Esq.	5	1	0	790	644	25·37 198
Hawarden Great Central Rly Co. .	9	3	6	35	752	29·60 178
Northop (Soughton Hall) Lord Justice Bankes....	5	1	0	418	856	33·71 182
D Hawarden Bridge T. T. Sili, Esq.	8	1	3	22	714	28·13 170
D Mostyn Vicarage Rev. W. Vaughan-Jones .	5	1	0	100	963	37·90 215
2.—CLWYD. 51 sq. mi.						
D Bodfari (Nantlys) D. F. Pennant, Esq. ...	5	1	4	173	700	27·57 173
D Bodfari (Cae Gwyn) Mrs. Morgan.....	5	0	5	542	781	30·76 182
D St. Asaph (St. Beuno's College) Rev. R. S. Corish, S.J. ...	8	1	0	480	767	30·20 195
Dyserth Castle J. B. Price, Esq.	5	0	6	350	735	28·92 ..
D Rhyl (Sewage Works) A. A. Goodall, Esq.	8	1	0	31	742	29·21 195
3.—SEVERN—Left Bank Tributaries. 7 sq. mi.						
DENBIGH. (Area, 668 sq. mi.)						
1.—DEE 270 sq. mi.						
D Chirk Castle Gardens Mr. James Vert	5	1	2	625	935	36·80 186
D Ruabon (Whitehurst) Mr. James Vert	5	1	1	327	909	35·78 198
Wrexham (Ty Mawr Reservoir) F. Storr, Esq., C.E.	5	0	9	805	1035	40·76 184
Wrexham (Pack Saddle Res.) . F. Storr, Esq., C.E.	5	0	9	370	912	35·91 213
Wrexham (Cae Llwyd Res.) ... F. Storr, Esq., C.E.	8	0	9	918	1105	43·50 185
Wrexham (Cae Llwyd Res.) ... F. Storr, Esq., C.E.	5	0	9	918	1034	40·71 185
D Wrexham (Broughton Colliery) . J. Hall, Esq.	5	1	0	500	878	34·58 209
D R. Alwen (Hafod-llan-isaf) No.1 J. H. Parkin, Esq.	5	1	0	1200	1108	43·64 210
D R. Alwen (Hafod-llan-isaf) No.2 J. H. Parkin, Esq.	5	1	2	1200	1099	43·27 209
D R. Alwen (Hafod-llan-isaf) No.3 J. H. Parkin, Esq.	5	1	0	1200	1052	41·41 202
D Pentre Voelas (Nant Heilyn) . J. H. Parkin, Esq.	5	1	0	1225	1404	55·29 210
D R. Brenig (Hafod-yr-Onen) J. H. Parkin, Esq.	5	1	0	1175	1167	45·96 223
M Nantglyn (Pant-y-maen) J. H. Parkin, Esq.	8	1	0	1320	1461	57·51 ..
M Llyn Bran J. H. Parkin, Esq.	8	1		1428	1460	57·48 ..
2.—CLWYD & C. 267 sq. mi.						
D Gyffylliog (Fachlwyd Hall) ... Elliott S. Currey, Esq. ...	5	1	0	640	1018	40·08 233
D Ruthin (Tymawr) Maj.-Gen. C. L. Cary ...	5	1	0	400	799	31·46 197
D Ruthin (Plas Llangwyfan) J. R. Lloyd, Esq.	5	1	0	470	635	24·99 161
D Ruthin (Llanbedr Hall) Dr. H. Morriston Davies .	5	1	0	451	740	29·15 189
D Llangerniew (Hafodunos) Col T. Gee	5	2	6	512	1411	55·54 177
M Llanefydd (Rhyl W.W. S.) ... L. G. Hall, Esq., C.E. ...	5	1	0	600	849	33·41 ..

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

STATIONS.	AUTHORITIES.	Rain Gauge.		Depth of Rain. 1918	Days with ·01 in. or more
		Diam.	Height Above Ground Sea Level		
DENBIGH—(con.)		in.	ft. in.	feet	mm. inches
2.—CLWYD & C—(con.)					
M Llanefydd (Rhyl W.W., W.)	L. G. Hall, Esq., C.E.	5	1	0 580	790 31·10 ..
D Llanefydd (Plas Uchaf Res.)	L. G. Hall, Esq., C.E.	5	1	0 485	805 31·71 165
D Llanefydd (Glascoed Res.)	L. G. Hall, Esq., C.E.	5	1	0 360	960 37·81 197
D Llangynhafal (Plâs Drâw)	Col. C. J. Bromhead, C.B.	5	1	0 419	822 32·36 221
D Denbigh (Asylum)	W. Barker, Esq.	5	0	10 316	819 32·26 178
D Denbigh (Garn)	W. D. W. Griffith, Esq.	5	1	0 447	910 35·83 192
D Trefnant (Maes Elwy)	Mrs. R. F. Birch	5	1	0 195	790 31·09 157
Wygfair [St. Asaph]	(R) Col. H. R. L. Howard, C.B.	8	2	6 250	884 34·81 ..
D Colwyn Bay (Council Offices)	W. Jones, Esq., C.E.	8	1	0 82	842 33·16 169
3.—CONWAY. 84 sq. mi.					
D Pentre Foelas (Voelas Hall)	Mr. T. Dickie	5	1	3 640	1494 58·80 185
D Llanrwst (County School)	Rev. J. I. Farr	5	1	4 55	1409 55·49 209
D Tal-y-cafn (Bodnant Hall)	Mr. George Gurney	8	1	0 120	1030 40·56 200
4.—SEVERN—Left Bank Tributaries. 47 sq. mi.					
Llansilin (Rhiwlas School)	Oswestry Advertiser	..	..	..	973 38·31 ..
D Llansilin (Penygwely Res.)	G. W. Lacey, Esq., C.E.	5	1	0 1094	818 33·38 211
MERIONETH. (Area, 661 sq. mi.)					
1.—DEE. 218 sq. mi.					
Bala (Eryl Aran)	Mrs. Burton	8	1	0 600	1810 71·63 214
Llanderiel (Paié Gardens)	Mr. E. J. Edwards	8	1	0 606	1408 55·44 211
Corwen (Rûg Gardens)	Mr. F. Hopwood	8	1	2 500	1017 40·03 ..
2.—CLWYD. 7 sq. mi.					
3.—GLASLYN. 92 sq. mi.					
D Tan-y-bwlch (The Gardens)	Mr. J. Roberts	5	1	0 50	1995 78·59 215
Tan-y-bwlch (Dol-y-Moch)	Mrs. Howland Jackson	5	0	6 55	2059 81·07 219
Blaenau Festiniog (Oakley Q.)	R. H. Jones, Esq.	5	10	0 1100	3623 142·65 ..
D Blaenau Festiniog (Lechwedd Q.)	Messrs J. W. Greaves & Sons	5	1	0 770	3315 130·51 248
4.—MAWDDACH & C. 262 sq. mi.					
D Towyn (Ynys-y-Maengwyn)	Roger Corbett, Esq.	5	1	0 14	1260 40·61 198
D Towyn (Peniarth)	Mrs. Wynne	8	1	0 25	1430 56·29 220
Dolgeilly (Dr. Williams' School)	Miss F. A. Anstey	5	4	0 43	1534 60·41 207
D Dolgelly (Bryntirion)	E. P. Beale, Esq.	5	0	10 50	1847 72·73 206
5.—DOVEY. 82 sq. mi.					
D Aberdovey (Plas Penhelig)	J. M. Howell, Esq.	5	1	0 130	1203 47·35 213
D Aberdovey (Froneithyn)	G. M. S. Farmer, Esq.	5	1	0 200	1154 45·42 205
Pennal (Talgarth Hall)	Frank Gott, Esq.	5	0	5 125	1707 67·22 181
6.—SEVERN—Left Bank Tributaries.					
CARNARVON. (Area, 572 sq. mi.)					
1.—[BARDSEY ISLAND.]					
[Bardsey Island]	Hon. F. G. Wynn	5	1	0 40	962 37·86 ..
2.—CONWAY & C. 146 sq. mi.					
D Snowdon (Pen-y-Gwryd) No. 13	A. Lockwood, Esq.	5	2	0 916	3480 137·00 ..
Lake Cowlyd (Llethyr Gwyn)	C. C. F. Farrington, Esq.	5	1	0 1700	2382 93·79 ..
Lake Cowlyd (Ffrith Fawr)	B. C. F. Farrington, Esq.	5	1	0 1700	2186 86·07 ..
L. Cowlyd (Ffrith Carreg Wen)	A. C. F. Farrington, Esq.	5	1	0 1168	2536 99·85 ..
D Lake Eigiau (Dam Site)	H. J. Jack, Esq.	5	1	5 1245	2513 98·95 227
Llanbedr-y-Cennin (Plasdulyn)	W. T. Ward, Esq.	8	1	0 509	1576 62·05 ..
Llanbedr-y-Cennin (Llyndulyn)	W. T. Ward, Esq.	8	1	6 1632	2151 84·67 ..

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

STATIONS.	AUTHORITIES.	Rain Gauge.				Depth of Rain.		Days with ·01 in. or more
		Diam.	Height Above Ground Sea Level			1918		
CARNARVON—(con.)		in.	ft.	in.	feet	mm.	inches	
2.—CONWAY & C—(con.)								
Deganwy (Y Berlfa)	(R) Willoughby Gardner, Esq.	5	1	0	35	888	34·95	..
D Llandudno	W. Little, Esq.	5	1	0	20	779	30·66	192
3.—MENAI STRAITS, &c. 221 sq. mi.								
Llanllyfni (Bryn Aerau School)	Llewelyn Parry, Esq.	5	1	0	50	1313	51·71	..
M Nantlle (Dorothea Quarries)	W. J. Griffith, Esq.	8	60	0	460	1812	71·36	..
Llandwrog (Glynllivon Park)	Hon. F. G. Wynn	5	1	0	100	1270	50·01	..
Llandwrog (Glynllivon Nursery)	Hon. F. G. Wynn	5	1	0	180	1348	53·07	194
Llandwrog (Glynllivon Garden)	Hon. F. G. Wynn	5	1	0	100	1298	51·10	..
Upper Llandwrog (Bronyfoel Sc.)	H. T. Griffiths, Esq.	5	1	0	1000	2059	81·05	..
Carnarvon (Belan Fort)	Hon. F. G. Wynn	5	1	0	12	1018	40·10	..
M Lake Ogwen C.E. School	R. Hughes, Esq.	5	1	0	1004	3432	135·10	..
D Llanberis (Bryntirion)	Mr. Emrys Jones	5	1	8	370	2274	89·52	214
D Llanberis (Brynrefail School)	J. Rees Foster, Esq.	5	1	0	356	1601	63·04	197
Llanberis (Llandinorwig School)	John Roberts, Esq.	5	1	0	850	1821	71·68	221
D Llanrug (Llys Eiddon)	J. Rees Foster, Esq.	5	1	0	400	1212	47·73	205
D Bethesda (St. Ann's Vicarage)	Rev. W. Morgan	5	2	6	450	1740	68·50	229
D Bethesda (Penrhyn Quarries)	W. D. Hobson, Esq.	8	1	0	528	1844	72·60	220
D Bangor (Penryhn Castle Gdns.)	Mr. W. Speed	5	1	0	150	1046	41·20	181
D Llanfairfechan	Mr. W. Timmins	5	1	0	144	1055	41·54	180
Penmaenmawr (Mountain Res.)	R. J. Hughes, Esq.	5	1	6	1200	1361	53·59	..
D Penmaenmawr (Council Offices)	R. J. Hughes, Esq.	5	1	6	100	977	38·47	187
4.—ERCH & C. 155 sq. mi.								
D Abersoch	W. H. Winterbotham, Esq.	8	1	0	100	1326	52·19	200
D Bryncroes (Schoolhouse)	E. R. Williams, Esq.	5	0	11	320	1327	52·26	185
Pwllheli (Bodfean Hall)	Hon. F. G. Wynn	5	1	0	200	1337	52·65	..
Pwllheli (Bodfean Hall Gdns.)	Hon. F. G. Wynn	5	1	0	200	1273	50·12	189
5.—GLASLYN. 50 sq. mi.								
Beddgelert (Council School)	David Jones, Esq.	5	1	0	133	2984	117·46	186
Snowdon (Wenallt)	No. 6 A. Lockwood, Esq.	5	1	2	1050	4487	176·66	..
D Snowdon (Cwm Dyli)	No. 11 A. Lockwood, Esq.	5	1	0	310	3412	134·35	241
Snowdon (Old Road)	No. 14 A. Lockwood, Esq.	5	0	10	325	3218	126·70	..
M Snowdon (Lliwedd)	No. 2 A. Lockwood, Esq.	5	1	3	1485	4924	193·85	..
M Snowdon (Glaslyn)	No. 3 A. Lockwood, Esq.	5	0	8	2050	4412	173·71	..
Snowdon (Teyrn)	No. 1 A. Lockwood, Esq.	5	1	0	1080	4804	189·12	..
Snowdon (L. Llydaw Intake)	10 A. Lockwood, Esq.	5	1	0	1480	4516	177·78	..
Snowdon (L. Llydaw Copper M.)	9BA. A. Lockwood, Esq.	5	1	5	1480	4940	194·47	..
M Snowdon (Crib Goch)	No. 8 A. Lockwood, Esq.	5	1	3	2340	5313	209·17	..
M Snowdon (Llyn Llydaw, N.)	5 A. Lockwood, Esq.	5	1	0	1470	4417	173·91	..
ANGLESEY. (Area, 275 sq. mi.)								
D Dwyran (Menaifron)	W. E. Sotheby, Esq.	8	1	0	17	1024	40·30	175
D Llanddaniel-Fab (Porthamel)	Hon. Cecil S. Irby	5	0	9	70	1016	40·02	183
D Plas Newydd Gardens	Mr. W. Owen	5	1	0	100	1302	51·28	202
D Llangadwaladr (Bodorgan)	Mr. W. Pilgrim	5	1	0	100	1096	43·15	205
D Llangefni (R.A.F. Station)	The Air Ministry	8	1	0	189	1104	43·46	216
D Llangefni (Penrhos)	Miss M. Nicholls-Jones	8	0	9	132	1184	46·63	198
Beaumaris (Fryars)	Mrs. Burton	10	2	0	20	1136	44·72	..
D Penmon (Tros-yr-afon)	Mrs. J. Hepworth	5	0	9	40	1064	41·91	206
D Llangwilog (Trescawen)	J. H. Pritchard-Rayner Esq.	5	1	0	239	1277	50·29	205

DIVISION XL.—MONMOUTH, WALES, AND THE ISLANDS—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.				Depth of Rain.		Days with ·01 in. or more
		Diam.	Height Above Ground		Sea Level	1918		
ANGLESEY—(con.)		in.	ft.	in.	feet	mm.	inches	
D Bodedern (Presaddfed)	Lt.-Col. W. A. Fox-Pitt	5	1	0	150	1204	47·41	153
Holyhead (Sailors' Home)	Meteorological Office	5	1	0	15	1029	40·51	199
D Llanerchymedd Llwydiarth Esqb. T. Prichard, Esq.		5	1	6	175	1134	44·63	235
D Penrhoslligwy School	T. Rowlands, Esq.	5	1	0	200	1176	46·31	198
D Lligwy	Lord Boston	5	1	0	170	1055	41·53	208
Amlwch (Dyffryn Adda)	Major T. Fanning Evans	5	1	2	178	1097	43·18	214
ISLE OF MAN. (Area, 227 sq. mi.)								
Castletown (Langness)	Board of Northern Lights	8	1	0	75	820	32·28	195
Santon Vicarage	Rev. R. Jones	5	0	10	245	1038	40·87	201
Douglashead	Board of Northern Lights	..	..	..	..	643	25·30	..
D Douglas Borough Cemetery)	A. D. Barron, Esq.	8	1	0	284	1288	50·71	221
D Douglas (Clype Res., Onchan). Mr. W. Crebbin		8	1	0	420	1364	53·68	224
Maughold Head	Board of Northern Lights	..	..	..	..	1198	47·16	..
D Kirkmichael (Bishop's Court)	Mr. W. Brew	5	0	10	80	943	37·11	165
D Ramsey (Town Hall)	G. W. Kewin, Esq.	8	15	0	18	1342	52·82	208
D Ramsey (North Promenade)	G. W. Kewin, Esq.	5	2	0	5	1340	52·77	217
Point of Ayre	Board of Northern Lights	3	4	6	116	594	23·38	..
CHANNEL ISLANDS. (Area, 76 sq. mi.)								
JERSEY. (45 sq. mi.)								
D Pontac (St. Edmund's)	Dr. E. G. Barnes	5	1	6	30	742	29·23	185
D Samares (Les Silleries)	V. J. Bailhache, Esq.	5	2	6	164	763	30·05	215
D St. Saviour's (Clifton)	C. V. Hawksford, Esq.	5	3	1	218	754	29·68	186
D St. Helier (St. Louis Obs'y.)	Rev. M. Dechevrens, S.J.	8	5	9	180	688	27·08	174
D St. Brelades (La Sergenté)	J. E. Le Boutillier, Esq.	5	2	6	188	626	24·63	174
St. Aubins (Railway Station)	Metecrological Office	8	1	9	25	715	28·15	175
D St. Aubins (Belle Vue)	C. J. Sumner, Esq.	5	1	4	220	753	29·66	185
D Millbrook (St. Helier W.W.)	A. J. Jenkins, Esq., C.E.	5	0	11	52	731	28·77	174
D St. Lawrence (Fontenelle)	P. A. Gore, Esq.	5	1	0	200	781	30·75	209
D St. Ouen's Manor	R. Malet de Carteret, Esq.	5	2	6	270	767	30·18	172
D St. Martins	Dr. Paul Chappius	5	..	..	..	664	26·16	181
GUERNSEY. (25 sq. mi.)								
D St. Martins (Les Blanchés)	B. T. Rowswell, Esq.	5	1	0	310	731	28·77	190
D St. Martin's Rectory	Rev. R. Coulthard	5	1	0	300	741	29·18	194
St. Martins (Hautnez)	A. Collenette, Esq.	5	0	8	343	740	29·12	206
Villiaze	A. Collenette, Esq.	5	0	6	337	751	29·55	215
D St. Saviours (Le Mont Saint)	S. Carey Curtis, Esq.	5	1	0	105	620	24·40	169
D St. Peter Port (St. Martin's Rd.)	A. Collenette, Esq.	5	1	0	295	818	32·20	212
D St. Peter Port (Market Street)	B. T. Rowswell, Esq.	5	52	8	100	791	31·15	176
D St. Peter Port (Villa Carey)	Dr. F. E. Carey	8	1	6	180	794	31·25	197
D St. Peter Port (Rohais)	T. J. Guilbert, Esq., C.E.	5	1	0	124	751	29·56	232
D Castel (St. George)	Rev. H. G. de C.S. Guille	5	0	10	120	719	28·31	200
SARK. (2 sq. mi.)								
D Pointe Robert	B. T. Rowswell, Esq.	5	1	0	215	691	27·21	188
HERM. (1 sq. mi.)								
ALDERNEY. (3 sq. mi.)								
D Le Huret	B. T. Rowswell, Esq.	5	1	0	245	567	22·33	195

SCOTLAND.

DIVISION XII.—SOUTHERN COUNTIES.

STATIONS.	AUTHORITIES.	Rain Gauge.				Depth of Rain. 1918	Days with ·01 in. or more	
		Diam.	Height Above Ground Sea Level					
WIGTOWN. (Area, 488 sq. mi.)		in. ft. in. feet				mm. inches		
1.—LOCH RYAN. 46 sq. mi.								
Loch Ryan Lighthouse	Board of Northern Lights	..	..	46		885	34·85	..
2.—WESTERN GALLOWAY. 44 sq. mi.								
Mull of Galloway	Board of Northern Lights	..	..	327		784	30·87	158
D Logan House	K. McDouall Esq.	8	1	0	80	1119	44·06	245
Corsewall	Board of Northern Lights	..	3	4	112	918	36·13	169
3.—LUCE BAY. 186 sq. mi.								
D Stoneykirk (Ardwell House)	Sir. M. McT. Stewart, Bt	8	2	4	65	1094	43·07	226
D Luce Bay (Air Station)	The Air Ministry	8	1	0	50	1146	45·08	222
D Glenluce (Crews)	Peter Taylor, Esq.	5	1	9	218	1071	42·16	188
4.—CREE & WIGTOWN BAY. 212 sq. mi.								
D Whithorn (Cutroach)	J. G. Martin, Esq.	5	0	6	120	1045	41·13	192
KIRKCUDBRIGHT. (Area, 902 sq. mi.).								
1.—DOON. 16 sq. mi.								
2.—CREE & WIGTOWN BAY. 222 sq. mi.								
Gatehouse (Cally)	Col. F. M. Baillie, <i>per</i> MO.S.	5	1	0	120	1452	57·17	200
Creetown (Cassencary)	J. A. Henryson-Caird, Esq.	5	0	8	50	1272	50·07	205
D Palnure (Bargaly)	Mrs. Colvin Stewart <i>pers</i> SMS	8	3	5	50	1477	58·15	207
3.—DEE. 377 sq. mi.								
Little Ross Lighthouse	Board of Northern Lights	..	3	3	175	788	31·03	175
Kirkcudbright (Balmae)	The Countess of Selkirk	5	0	8	150	987	38·87	..
New Galloway (Glenlee Park)	Mr. C. Jamieson	5	0	6	234	1717	67·60	162
D Dalry (Glendarroch)	Miss M. Barbour	5	0	11	192	1590	62·60	234
D Carsphairn (Shiel)	Mr. S. Wilson	5	1	0	850	2184	85·99	243
D Carsphairn (Knockgray)	Miss Clark Kennedy	8	0	11	641	1691	66·56	216
4.—URR & C. 196 sq. mi.								
Auchencairn (Torr House)	W. Ovens, Esq.	5	0	8	50	1470	57·89	..
D Dalbeattie (Kirkennan)	Wellwood Maxwell, Esq.	5	0	9	30	1392	54·80	210
D Dalbeattie (Richorn Wood)	Mrs. McNae	5	1	0	54	1256	49·45	207
Dalbeattie (Southwick)	Sir M. McT. Stewart, Bt. <i>per</i> SMS	..	..	150		1230	48·44	..
D Kirkpatrick Durham (Glenlair)	Mrs. Wedderburn Maxwell	5	0	6	250	1404	55·28	183

DIVISION XII.—SOUTHERN COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.		Depth of Rain. 1918	Days with ·01 in. or more
		Diam.	Height Above Ground SeaLevel		
KIRKCUDBRIGHT—(con.).		in. ft. in. feet		mm.	inches
5.—NITH & C. 91 sq. mi.					
D Cargen [Dumfries].....	Col. R. F. Dudgeon ...	5	0 10 80	1315	51·77 207
Lochrutton (Dumfries W.W.)	J. Smellie, Esq.	5	1 0 273	1307	51·45 201
D Lincluden House [Dumfries]	..Miss Young	5	1 0 60	1159	45·64 215
D Jardington [Dumfries]	.....J. Rutherford, Esq. ...	5	1 0 50	1115	43·91 212
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)	..Mr. W. Brown	5	1 0 74	1045	41·14 198
D Dumfries (Crichton Roy. Inst.)	Mr. E. Joss.....	5	1 0 140	998	39·31 204
Moniaive (Glencrosh)	.....Miss Macmillan	5	1 2 350	1480	58·26 220
D Moniaive (Maxwelton House)	..SirClaudeVELaurie,Bart.	5	1 6 400	1202	47·32 176
Moniaive (Jarbruck)	.....late Cecil E. Laurie, Esq.	8	1 2 350	1632	64·24 229
Durrisdeer(DrumlanrigGardns.)	Mr. D. Inglis, <i>per</i> S.M.S.	5	0 9 191	1457	57·35 203
4.—ANNAN. 367 sq. mi.					
Dalton (Whitecroft)	.....W.Maitland-Heriot, Esq.	5	0 6 240	1158	45·61 ..
D Hoddam Castle	.....G. J. Brook, Esq., <i>per</i> S.M.S.	5	1 4 150	1124	44·26 213
Ecclefechan (Burnfoot)	.....MajorH.C.Irving, <i>per</i> SMS	5	0 10 160	1224	48·20 ..
D Dalton (School House)	.....P. C. Copland, Esq.	5	1 0 175	1204	47·38 228
D Dalton (Kirkwood)	.....Arthur J. Steel, Esq. ...	5	0 8 245	1287	50·68 231
D Lockerbie (Castle Milk)	.....Mr. J. T. Jeffrey	5	1 6 199	1172	46·16 200
D Lochmaben (Esthwaite)	.....W. J. Halliday, Esq. ...	5	1 0 166	1120	44·11 213
Amisfield (Glenae)	.....H. Sharpe Gordon, Esq.	5	0 11 300	1022	40·22 191
Moffat (Craigielands)	.....Mr. Luke Fraser	5	1 0 334	1424	56·08 ..
D Moffat (Auchen Castle)	.....Mr. J. Macgregor.....	5	0 6 506	1458	57·38 226
5.—ESK. 275 sq. mi.					
M Canonbie (Byreburnfoot)	.....Mr. David Crabbe	3	0 9 160	1118	44·00 ..
D Canonbie (Irvine House)	.....J. H. Milne Home, Esq..	5	0 6 200	1226	48·26 206
D Langholm (Drove Road)	.....Mrs. Jackson	5	0 9 270	1409	55·47 186
D Langholm (Craig)	.....J. Little, Esq.	5	1 0 450	1349	53·12 195
Langholm (Ewes, Burnfoot)	...R. E. Little, Esq.	5	0 6 541	1104	43·47 ..
Langholm (Ewes School)	.....Mrs. Lyall.....	5	1 0 445	1376	54·18 ..
Eskdalemuir Observatory	.....Meteorological Office ..	11	2 0 794	1589	62·54 232
D Eskdalemuir Observatory	.....Meteorological Office ..	8	1 0 793	1624	63·96 243
ROXBURGH. (Area, 666 sq. mi.)					
1.—NORTH TYNE. 6 sq. mi.					
2.—TWEED, LOWER—Right Bank Tributaries. 57 sq. mi.					
Kelso (Springwood Nurseries)	..Messrs. Laing & Mather	5	1 0 200	623	24·53 212
3.—TWEED—Teviot & c. 431 sq. mi.					
Hawick (Wolfelee)	.....W.SteedmanEsq. <i>per</i> MOS	5	0 10 537	967	38·08 217
D Hawick (Branxholme)	.....J. G. Winning, Esq.	5	0 6 457	770	30·31 211
D Ancrum (Monteviot)	.....Bertram Talbot, Esq. ..	5	3 0 250	688	27·08 180
D Jedburgh (Ploughlands)	.....J. Scott, Esq.....	5	1 0 301	600	23·62 202
M St. Boswells (Monksford)	.....Col. A. Mitchell	5	0 11 320	690	27·16 ..
D St. Boswells (The Fens)	.....J. J. Fairbairn, Esq.....	5	1 6 260	624	24·58 146
Kelso (Springwood Park)	.....Mr. W. Chaplin	5	1 3 130	572	22·54 180

DIVISION XII.—SOUTHERN COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.				Depth of Rain.	Days with ·01 in. or more
		Diam.	Height Above Ground SeaLevel				
						1918	
ROXBURGH—(con.)						<i>in. ft. in. feet</i>	<i>mm. inches</i>
4.—TWEED—Ettrick & c. 10 sq. mi.							
D Melrose (Asylum)	.....gauge A Mr. A. C. Pattman ...	5	0	6	480	775	30·51 252
D Melrose (Asylum)	.....gauge B Mr. A. C. Pattman ...	5	1	0	480	734	28·91 · 252
Old Melrose Gardens	.....Mr. S. Brookes	5	1	2	200	758	29·86 205
5.—TWEED—Gala. 6 sq. mi.							
6.—TWEED—Leader & c. 25 sq. mi.							
D Melrose (Drygrange)	.....T. J. S. Roberts, Esq. . .	5	1	0	360	650	25·59 179
7.—TWEED, LOWER—Left Bank Tributaries. 25 sq. mi.							
D Kelso (Broomlands)	.....J. C. Scott, Esq.	5	1	0	193	564	22·21 181
M Smailholm (Sandyknowe)	.....Mr. J. E. Templeton ...	5	1	2	500	549	21·62 ..
8.—ESK. 106 sq. mi.							

DIVISION XIII—SOUTH EASTERN COUNTIES.

SELKIRK. (Area, 268 sq. mi.)								
1.—TWEED—Teviot & c. 34 sq. mi.								
D Selkirk (Whitmuir Hall)	C. W. Dunlop, Esq. . . .	5	1	0	800	771	30.37	174
2.—TWEED—Ettrick & c. 192 sq. mi.								
M Edinburgh W.W. (Meggat Hd.) 1	Messrs. Leslie & Reid, C.E.	5	1	3	1496	1482	58.36	..
D Selkirk (The Hangingshaw) . . .	Miss Johnstone of Alva .	5	0	6	670	764	30.08	154
Selkirk (Lindean Reservoir) . . .	S. Pittillo, Esq.	5	1	0	900	712	28.05	..
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	762	29.99	161
Galashiels (The Peel Clovenfords)	W. R. Ovens, Esq.	6	1	6	500	832	32.77	..
5.—TWEED—Gala. 6 sq. mi.								
D Galashiels (Abbotsford Rd.) . . .	Dr. J. W. Somerville . . .	5	0	8	416	667	26.26	176
Galashiels (Stantling Craigs) . .	Mr. J. Murray	12	1	3	800	818	32.21	..
PEEBLES. (Area, 348 sq. mi.)								
1.—TWEED, UPPER—Right Bank Tributaries. 127 sq. mi.								
Edinburgh W.W. (Ravenscraig) 3	Messrs. Leslie & Reid, C.E.	5	1	3	2258	2287	90.05	..
M Edin. W.W. (Gameshope Loch) 4	Messrs. Leslie & Reid, C.E.	5	1	3	1860	2013	79.25	..
M Edin. W.W. (Loch Craig Head) 2	Messrs. Leslie & Reid, C.E.	5	1	0	2627	1880	74.02	..
D Edin. W.W. (Gameshope Farm) 5A	Messrs. Leslie & Reid, C.E.	5	1	3	1538	1963	77.28	251
M Edin. W.W. (Gameshope Farm) 5	Messrs. Leslie & Reid, C.E.	8	1	3	1538	1901	74.83	..
D Edin. W.W. (Talla Linns Foot) 6A	Messrs. Leslie & Reid, C.E.	5	1	3	966	1602	63.05	246
M Edin. W.W. (Talla Linns Foot) 6	Messrs. Leslie & Reid, C.E.	8	1	3	966	1579	62.17	..
D Edin. W.W. (Quarter Hill) No. 7A	Messrs. Leslie & Reid, C.E.	5	1	3	1196	1273	50.13	227
M Edin. W.W. (Quarter Hill) No. 7	Messrs. Leslie & Reid, C.E.	8	1	3	1196	1236	48.65	..
D Edin. W.W. (Victoria Lodge) . . 8	Messrs. Leslie & Reid, C.E.	5	1	3	904	1215	47.85	226
M Edin. W.W. (Victoria Lodge) . . 8A	Messrs. Leslie & Reid, C.E.	8	1	3	904	1135	44.70	..
2.—TWEED, UPPER—Left Bank Tributaries. 192 sq. mi.								
Stobo Castle	J. Ainslie, Esq.	5	1	0	590	892	35.12	193
Innerleithen (Glen)	Mr. A. Black, <i>per</i> M.O.S. . .	..	..	..	754	1066	41.95	..
D Castlecraig [Dolphinton]	James Mann Esq. <i>per</i> S.M.S. . .	..	..	..	820	775	30.51	161
D West Linton (Woodlee Cottage)	Messrs. Leslie & Reid, C.E.	5	1	0	801	801	31.53	230
D West Linton (Dalziel House) . .	Dr. J. R. Jeffrey	5	1	0	770	868	34.19	197

DIVISION XIII.—SOUTH EASTERN COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.		Diam.	Height Above Ground Sea Level	Depth of Rain.		Days with ·01 in. or more
						1918		
PEEBLES—(con.)						in. ft. in. feet	mm. inches	
3.—ESK. 23 sq. mi.								
D Eddlestone (Portmore Res.)	Messrs. Leslie & Reid, C.E.	11	1	0	1000	857	33·74	197
M Eddlestone (Portmore Res.)	Messrs. Leslie & Reid, C.E.	11	1	0	1007	851	33·51	..
M N. Esk Reservoir [Penicuik]	Mr. W. Tod	11	0	6	1150	851	33·50	..
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.								
Earlston (Cowdenknowes)	Mr. J. Smith, <i>per</i> S.M.S.	5	0	10	360	648	25·53	..
Lauder (Burncastle)	J. S. S. Turnbull, Esq.	5	1	0	900	724	28·51	..
M Earnsclough Burn (Blythe Rig)	J. S. S. Turnbull, Esq.	5	1	0	1200	784	30·86	..
3.—TWEED, LOWER—Left Bank Tributaries. 115 sq. mi.								
Coldstream (Lochton)	J. Aitchison, Esq.	5	1	0	151	622	24·47	..
Coldstream (The Hirsell)	Mr. D. Black, <i>per</i> S.M.S.	5	1	0	94	622	24·50	..
D Swinton House	Snowdon A. E. Swinton, Esq.	5	1	0	200	599	23·60	196
D Swinton House	A. E. Swinton, Esq.	5	0	10	200	599	23·59	196
4.—TWEED—Whiteadder. 164 sq. mi.								
D Marchmont House	Mr. J. A. Wood	5	1	0	498	710	27·97	173
D Duns Castle	Mr. P. Smith	5	3	0	500	673	26·49	181
Duns (Manderston)	Mr. F. J. Marshall	5	1	6	356	703	27·66	..
West Foulden	J. Hewat Craw, Esq.	5	1	0	240	615	24·21	..
5.—EAST COAST STREAMS. 80 sq. mi.								
HADDINGTON. (Area, 267 sq. mi.)								
1.—TWEED—Leader. 1 sq. mi.								
2.—TWEED—Whiteadder. 35 sq. mi.								
3.—EAST COAST STREAMS. 69 sq. mi.								
Garvald (Donolly Reservoir)	A. G. Merriles, Esq., C.E.	5	1	6	600	748	29·44	..
Garvald (Thorster Reservoir)	A. G. Merriles, Esq., C.E.	5	1	6	700	505	19·88?	..
Prestonkirk (Ninewar)	W. S. Curr, Esq., <i>per</i> S.M.S.	5	1	0	120	607	23·91	..
Barnsness Lighthouse	Board of Northern Lights	..	..	..	120	546	21·50	..
4.—TYNE & C. 114 sq. mi.								
Lammermuir Hills (Wanside R) A	J. Ross, Esq., C.E.	5	1	0	998	611	24·06	..
Lammermuir Hills (Wanside R) B	J. Ross, Esq., C.E.	5	1	0	950	757	29·81	..
D Prestonkirk (Knowes)	Mr. J. Rattray	5	1	0	78	650	25·61	175
Prestonkirk (Smeaton)	Sir A. Buchan-Hepburn	7	7	10	100	663	26·12	159
D East Fortune	The Air Ministry	8	1	0	85	601	23·69	174
5.—FIRTH OF FORTH. 48 sq. mi.								
D Gullane (The Warren)	H. E. Meek, Esq.	8	1	0	115	613	24·15	208
D North Berwick Reservoir	A. G. Merriles, Esq., C.E.	5	1	6	150	608	23·93	..
6.—INSULAR.								
MIDLOTHIAN. (Area, 369 sq. mi.)								
1.—TWEED—Gala. 68 sq. mi.								
Stow (Cragdale)	A. L. Pringle, Esq.	5	0	6	642	786	30·95	..
2.—TYNE. 28 sq. mi.								
3.—FIRTH OF FORTH. 3 sq. mi.								
D Oxenfoord Castle Gardens	Mr. A. C. Scott	5	1	2	452	692	27·23	175
D Musselburgh (Levenhall)	Miss C. Husband	5	1	0	15	622	24·50	204

DIVISION XIII.—SOUTH EASTERN COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.		Depth of Rain. 1918	Days with ·01 in. or more
		Diam.	Height Above Ground Sea Level		
MIDLOTHIAN—(con.)		in.	ft. in. feet	mm.	inches
4.—ESK. 116 sq. mi.					
M Moorfoot Hills (Bowbate)	Messrs Leslie & Reid, C.E.	11	0 6 1260	1034	40·71 ..
D Moorfoot Hills (Gladhouse Res.)	Messrs. Leslie & Reid, C.E.	5	0 8 915	909	35·80 241
M Moorfoot Hills (Gladhouse Res.)	Messrs. Leslie & Reid, C.E.	8	1 0 915	882	34·74 ..
D Moorfoot Hills (Rosebery)	Messrs. Leslie & Reid, C.E.	4	0 9 750	787	30·99 221
M Moorfoot Hills (Rosebery)	Messrs. Leslie & Reid, C.E.	11	0 9 750	734	28·90 ..
D Moorfoot Hills (Edgelaw)	Messrs. Leslie & Reid, C.E.	4	0 10 654	776	30·53 220
M Moorfoot Hills (Edgelaw)	Messrs. Leslie & Reid, C.E.	11	0 10 654	746	29·35 ..
D Penicuik (Brunstane Cottage)	Messrs. Leslie & Reid, C.E.	5	1 0 800	896	35·28 226
D Gorebridge (Deanbank)	A. Wilson Spalding, Esq.	5	1 0 500	692	27·25 295
Pentland Hills (Harehill)	Messrs. Leslie & Reid, C.E.	11	1 7 1297	982	38·67 ..
D Pentland Hills (Martyrs Cross)	Messrs. Leslie & Reid, C.E.	5	1 0 750	849	33·41 227
D Pentland Hills (Loganlea)	Messrs. Leslie & Reid, C.E.	5	1 0 811	856	33·68 192
M Pentland Hills (Loganlea)	Messrs. Leslie & Reid, C.E.	8	1 4 813	820	32·30 ..
D Pentland Hills (Glencorse Fil.)	Messrs. Leslie & Reid, C.E.	5	1 0 639	840	33·08 201
M Pentland Hills (Glencorse Fil.)	Messrs. Leslie & Reid, C.E.	11	1 0 639	876	34·50 ..
D Pentland Hills (Glen Cottage) . .	Messrs. Leslie & Reid, C.E.	5	1 2 739	859	33·81 200
M Pentland Hills (Glen Cottage) . .	Messrs. Leslie & Reid, C.E.	8	1 2 738	861	33·90 ..
Milton Bridge (Bush)	JS Abernethy, Esq. <i>pers</i> SMS	5	1 0 600	772	30·38 ..
Newbattle (Public School)	W. Fowler, Esq.	5	4 3 300	565	22·24 ..
D Dalkeith Gardens	Mr. J. Whytock	5	1 0 144	623	24·53 172
Musselburgh (Pinkieburn)	Mr. G. Wright, <i>per</i> S.M.S.	..	.. 50	604	23·78 ..
5.—ALMOND & C. 153 sq. mi.					
D Pentland Hills (Crosswood)	Messrs. Leslie & Reid, C.E.	5	1 0 950	905	35·64 195
M Pentland Hills (Crosswood)	Messrs. Leslie & Reid, C.E.	8	1 0 950	895	35·25 ..
D Pentland Hills (Harperrig)	Messrs. Leslie & Reid, C.E.	5	1 0 900	933	36·74 237
M Pentland Hills (Harperrig)	Messrs. Leslie & Reid, C.E.	8	1 0 900	919	36·18 ..
D Pentland Hills (Morton)	Messrs. Leslie & Reid, C.E.	5	1 0 749	898	35·34 244
D West Calder (Addiewell)	Young's Oil Co., Ltd. . .	12	24 3 620	818	32·19 163
D Balerno (Cockburn Hill)	R. Cross, Esq.	5	1 0 767	861	33·91 186
D Mid-Calder (Calder Hall)	T. A. F. Hog, Esq. . . .	5	1 2 400	685	26·97 192
D Pentland Hills (Harlaw Res.) . . .	Messrs. Leslie & Reid, C.E.	5	1 0 800	742	29·21 211
M Pentland Hills (Harlaw Res.) . . .	Messrs. Leslie & Reid, C.E.	11	0 9 800	725	28·55 ..
Pentland Hills (Bonally Res.) . . .	Messrs. Leslie & Reid, C.E.	11	0 6 1112	831	32·71 ..
Pentland Hills (Clubbiadean Rs.)	Messrs. Leslie & Reid, C.E.	4	0 6 773	631	24·86 ..
M Pentland Hills (Clubbiadean Rs.)	Messrs. Leslie & Reid, C.E.	11	0 9 733	693	27·30 ..
D Pentland Hills (Swanston)	Messrs. Leslie & Reid, C.E.	5	0 6 550	683	26·90 195
M Pentland Hills (Swanston)	Messrs. Leslie & Reid, C.E.	11	0 6 550	760	29·92 ..
D Pentland Hills (Fairmilehead) . .	Messrs. Leslie & Reid, C.E.	5	1 0 590	715	28·15 167
D Colinton (Northfield)	Mr. J. C. Wright <i>per</i> S.M.S.	..	.. 403	694	27·31 182
D Pentland Hills (Firhill Tank) . .	Messrs. Leslie & Reid, C.E.	5	0 6 412	691	27·21 199
D Liberton (Alnwick Hill)	Messrs. Leslie & Reid, C.E.	5	1 0 407	677	26·67 189
M Liberton (Alnwick Hill)	Messrs. Leslie & Reid, C.E.	8	1 0 407	674	26·55 ..
Liberton (College Garden)	AMcCallum, Esq. <i>per</i> SMS	5	1 0 190	644	25·34 163
D Liberton (The Inch)	(R). Gen. R. Gordon Gilmour CB	8	2 9 60	627	24·69 178
D Edinburgh (Royal Observatory)	Prof. R. A. Sampson, F.R.S.	8	1 0 442	614	24·19 183
Edinburgh (Napier Road)	John Harrison, Esq. . . .	5	1 2 230	619	24·36 167
D Edinburgh (The Academy)	M. McC. Fairgrieve, Esq. .	5	1 0 67	610	24·02 180
D Edinburgh (Univ. Engin. Lab.)	Prof. T. Hudson Beare . .	5	1 0 227	638	25·11 212
M Edinburgh (Univ. Engin. Lab.)	Prof. T. Hudson Beare . .	5	1 0 227	629	24·77 ..
D Edinburgh (St. Roque)	H. B. Waugh, Esq. <i>per</i> SMS	..	.. 270	636	25·04 191

DIVISION XIII.—SOUTH EASTERN COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.				Depth of Rain.		Days with '01 in. or more
		Diam.	Height Above Ground Sea Level			1918		
MIDLOTHIAN—(con.)		in. ft. in. feet				mm.	inches	
5.—ALMOND & C—(con.)								
D Edinburgh (City Observatory)	Sir W. Peck	8	1	0	349	586	23·07	201
Edinburgh (Charlotte Square)	Messrs. Leslie & Reid, C.E.	11	1	6	190	604	23·77	..
Edinburgh (Charlotte Square)	Messrs. Leslie & Reid, C.E.	12	63	0	300	473	18·62	..
Leith (Starbank Park)	Meteorological Office	8	1	8	30	655	25·79	196
Leith (Navigation School)	J. Bolam, Esq., <i>per</i> S.M.S.	5	0	5	76	604	23·77	..
D Davidson's Mains (Broomfield)	Mr. C. Comfort	5	0	10	42	581	22·87	163
6.—CLYDE—Right Bank Tributaries. 1 sq. mi.								
LINLITHGOW. (Area, 120 sq. mi.)								
1.—ALMOND & C. 60 sq. mi.								
M Uphall	No. 7.. Messrs. Leslie & Reid, C.E.	8	1	4	790	776	30·57	..
M Uphall	No. 8.. Messrs. Leslie & Reid, C.E.	8	1	5	577	794	31·26	..
M Uphall	No. 6.. Messrs. Leslie & Reid, C.E.	8	1	4	680	705	27·75	..
M Uphall	No. 3.. Messrs. Leslie & Reid, C.E.	8	1	2	711	776	30·54	..
D Uphall (Bangour Asylum)	Col. J. Keay	5	1	0	586	758	29·84	207
D Uphall	Young's Oil Co., Ltd.	8	0	10	380	782	30·77	218
D Kirkliston (Newliston)	Mr. J. Boyd, <i>per</i> S.M.S.	8	0	10	140	725	28·54	186
D Dalmeny House	Mr. D. T. Johnston	5	0	8	55	710	27·95	179
2.—FORTH—Right Bank Tributaries. 59 sq. mi.								
M Torphichen (Lochcote)	John Louden, Esq.	5	0	4	550	837	32·94	..
M Carribber Reservoir	John Louden, Esq.	5	0	4	400	800	31·49	..
D Linlithgow (Grange)	H. M. Cadell, Esq.	5	0	6	430	755	29·71	188
D Linlithgow (Preston House)	Mr. C. Blair	5	1	0	380	802	31·57	185
D Linlithgow Academy	J. Beveridge, Esq.	5	1	0	170	911	35·87	211
M Linlithgow Academy	J. Beveridge, Esq.	5	1	0	170	922	36·29	..
Queensferry (Hopetoun)	Young's Oil Co., Ltd.	8	7	10	327	679	26·72	..
Bo'ness (Neidpath Cottage)	Mr. J. Grant	5	3	0	200	691	27·19	..
3.—CLYDE—Right Bank Tributaries. 1 sq. mi.								

DIVISION XIV.—SOUTH WESTERN COUNTIES.

LANARK. (Area, 881 sq. mi.)								
1.—TWEED, UPPER—Left Bank Tributaries. 20 sq. mi.								
D Biggar	J. Eunson, Esq.	8	1	0	691	812	31·95	214
Biggar (Cambus Wallace)	T. W. M. Watson, Esq.	6	0	6	748	828	32·60	..
2.—ALMOND. 14 sq. mi.								
3.—FORTH—Right Bank Tributaries. 9 sq. mi.								
M Airdrie (Forrestburn Reservoir)	J. Frew, Esq.	8	0	6	720	932	36·70	..
4.—CLYDE—Right Bank Tributaries. 378 sq. mi.								
Coulter Reservoir	No. 2.. W. Ross, Esq., C.E.	11	1	0	..	1256	49·43	..
Coulter Reservoir	No. 1.. W. Ross, Esq., C.E.	11	1	0	..	1346	53·00	..
Lamington (Cowgill Reservoir)	J. Chisholm, Esq., C.E.	5	1	0	970	1070	42·11	..
M Biggar (Shieldhill)	Miss Dunlop	5	1	2	850	828	32·62	..
D Biggar (Shieldhill)	Miss Dunlop	5	<i>on roof</i>		850	731	28·77	215
Lanark (Rhyber Lodge)	R. Swann, Esq.	6	3	0	650	795	31·30	..
D Cleghorn Gardens	Mrs. Elliott Lockart	5	0	6	720	901	35·48	177
Carluke (Coldstream Reservoir)	W. Ross, Esq., C.E.	11	1	0	800	883	34·75	..

DIVISION XIV.—SOUTH WESTERN COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain. 1918	Days with 0.1 in. or more
		Diam.	Height Above Ground Sea Level			
LANARK.—(con.)		in.	ft.	in. feet	mm.	inches.
4.—CLYDE—Right Bank Tributaries—(con.)						
Carlisle (Mauldslee Castle)	Mr. D. Bryson	5	1	0 140	700	27.57 ..
Wishaw (Orchardlea)	T. Swinnerton, Esq.	6	1	6 450	770	30.33 159
Glasgow (Tollcross Park)	J. Whitton, Esq.	5	0	6 85	1005	39.55 209
Glasgow Green	J. Whitton, Esq.	5	0	6 35	983	38.71 188
Glasgow (Alexandra Park)	J. Whitton, Esq.	5	0	6 141	960	37.79 238
D Glasgow Observatory	(R) J. Connell, Esq.	11	2	0 182	1050	41.34 241
Glasgow (Botanic Gardens)	J. Whitton, Esq.	5	0	6 110	923	36.34 201
Glasgow (Kelvingrove Park)	J. Whitton, Esq.	5	0	6 48	973	38.31 202
Glasgow (Victoria Park)	J. Whitton, Esq.	5	0	6 ..	1056	41.58 233
Glasgow (Ruchill Park)	J. Whitton, Esq.	5	0	6 222	970	38.19 212
Glasgow (Springburn Park)	J. Whitton, Esq.	5	0	6 352	1054	41.48 244
Glasgow (Springburn Park)	Meteorological Office	8	1	0 351	1029	40.51 243
D Airdrie (Broomknoll Street)	J. Chisholm, Esq., C.E.	5	1	0 402	921	36.26 199
Airdrie (Rosemount)	AB Motherwell Esq. per SMS	5	1	6 570	986	38.81 ..
D Airdrie (Hillend Reservoir)	Mr. W. A. Ritchie	5	3	6 620	949	37.35 207
Clarkston (Roughrigg Reservoir)	J. Chisholm, Esq., C.E.	5	1	0 661	906	35.69 ..
D Gartcosh (Gartloch Hospital)	Mr. James McEwen	5	1	1 291	1016	39.98 240
5.—CLYDE—Left Bank Tributaries. 448 sq. mi.						
D Leadhills	J. McFarlane Esq. per MOS	5	1	1 1310	1793	70.58 223
Strathaven (Glengavel Res.)	J. McMillan, Esq., C.E.	5	1	0 880	1187	46.72 213
Strathaven (Dungavel)	J. D. Wallace Esq. per SMS	5	1	0 789	1372	54.02 224
Strathaven (Kype Reservoir)	W. H. Purdie, Esq.	11	3	0 941	1052	41.40 ..
Strathaven (Dunside Res.)	J. McMillan, Esq., C.E.	5	..	1010	1269	49.97 210
D Strathaven (East Overton Ho.)	H. Lee Dykes, Esq.	5	1	0 700	1107	43.58 221
Stonehouse (Glassford Filters)	J. McMillan, Esq., C.E.	5	..	775	1059	41.68 219
Hamilton W.W. (Townhill)	W. H. Purdie, Esq.	7	1	0 436	987	38.85 ..
D Hamilton (Laighstone Hall)	Rev. T. M. B. Paterson	5	1	9 260	915	36.01 204
Hamilton Palace	J. Macaulay, Esq. per M.O.S. . . . .	..	..	140	857	33.74 201
Busby (Thornton Hall)	A. H. Bishop, Esq. per MOS	5	1	0 441	1084	42.68 232
D Carmunnock (Carnbooth)	R. Robertson, Esq., C.E.	5	1	0 365	1144	45.03 236
Cambuslang (Greenlees Filters)	J. McMillan, Esq., C.E.	5	..	322	1145	45.09 168
Glasgow (Bellahouston Park)	J. Whitton, Esq.	5	0	6 160	1009	39.74 227
Glasgow (Elder Park)	J. Whitton, Esq.	5	0	6 ..	1121	44.15 209
6.—IRVINE. 2 sq. mi.						
7.—AYR. 1 sq. mi.						
8.—NITH. 2 sq. mi.						
9.—ANNAN. 7 sq. mi.						
AYR. (Area, 1135 sq. mi.)						
1.—CLYDE—Left Bank Tributaries. 20 sq. mi.						
D Glengarnock (Chemical Works)	A. Shanks, Esq.	8	1	6 115	1454	57.23 235
2.—FIRTH OF CLYDE. 60 sq. mi.						
Largs (Curling Hall)	Mrs. J. Clark-Neill . . . . .	..	..	..	1064	41.89 ..
D Skelmorlie (West Park)	J. Wilkinson, Esq.	5	1	6 150	1480	58.25 207
Shaws Water Works (Kelly Dam)	J. Macalister, Esq.	6	1	0 640	1902	74.90 ..
Shaws Water (Knockencorsan)	J. Macalister, Esq.	6	1	0 1040	1948	76.70 ..
3.—IRVINE & C. 283 sq. mi.						
D Ayr (Collier Row, St. Quinox)	Allan Stevenson, Esq.	5	1	6 93	930	36.62 192
D Irvine (Gailes)	H. W. Aitken, Esq.	5	1	0 12	1037	40.83 197
D Kilmarnock (Agricultural Coll.)	Prof. R. A. Berry	8	1	2 80	1090	42.90 214

DIVISION XIV.—SOUTH WESTERN COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain. 1918	Days with 0.1 in. or more
		Diam.	Height Above Ground Sea Level			
AYR.—(con.)		in.	ft.	in. feet	mm.	inches
3.—IRVINE & C—(con.)						
	Kilmarnock (North Craig Res.) R. Blackwood, Esq.	12	1	0 319	1156	45.50 ..
D	Kilwinning (Eglinton Castle) ..Mr. W. Priest.....	5	1	0 50	1154	45.45 190
D	Stevenston (Greenhead Filters) GilbertChristie, Esq., C.E.	5	1	0 186	1108	43.64 204
	Dairy (Blair Gardens) .....Mr. J. Fairley	5	1	0 155	1241	48.86 210
D	Dalry (Munnoch Reservoir)....GilbertChristie, Esq., C.E.	5	1	0 325	1341	52.80 202
D	Dalry (Caaf Reservoir) .....GilbertChristie, Esq., C.E.	5	1	3 515	1414	55.67 202
D	Dalry W.W. (Filters) .....Mr. W. Wightman	5	1	0 320	1359	53.52 230
M	Dalry W.W. (Thirdpart) .....Mr. W. Wightman	5	1	0 560	1478	58.20 ..
	Dalry (Camphill Reservoir) ... James Lee, Esq., C.E. ...	12	1	6 611	1637	64.45 ..
4.—AYR. 222 sq. mi.						
	Ayr (Glendrishag) .....Miss Jean Murdoch	10	3	0 42	994	39.13 ..
D	Ayr Cemetery .....J. Young, Esq., C.E.	5	1	0 40	986	38.83 191
5.—DOON. 119 sq. mi.						
	Loch Finlas .....J. Young, Esq., C.E. ..	5	1	0 849	1410	55.51 ..
D	Dalmellington (Benwhat) ....A. Gillespie, Esq.	5	..	1177	1485	58.47 212
M	Maybole (Knockdon Farm) ...A. Cross, Esq.	5	1	6 352	1101	43.35 ..
D	Patna (Kerse Filters) .....W. Gray, Esq., C.E.	11	1	0 743	1166	45.90 235
D	Ayr (Doonholm) .....J. Kennedy, Esq.	5	1	0 90	1160	45.69 215
6.—CULZEAN BAY & C. 32 sq. mi.						
	Turnberry (Lighthouse) .....Board of Northern Lights ..	..	..	..	787	31.00 158
7.—GIRVAN. 105 sq. mi.						
	Girvan (Glendoune Gardens)...Mr. J. Simons	5	1	0 100	1240	48.82 192
D	Girvan (Sunnyside, Golf Course) D. Macdonald, Esq.	5	1	1 27	1112	43.78 212
	Loch Bradan .....Mrs. Eaglesham C.E. prsms.	11	1	0 991	1392	54.82 ..
8.—STINCHAR & C. 155 sq. mi.						
	Colmonell (Knockdolian) .....Mr. A. Ogg, per M.O.S. .	5	1	0 170	1186	46.69 224
D	Girvan (Pinmore) .....Miss Hamilton	5	0	5 207	1355	53.36 238
	Barr Manse .....Rev. G. Dods	5	1	0 330	1248	49.14 ..
9.—LOCH RYAN. 12 sq. mi.						
10.—LUCE BAY. 15 sq. mi.						
11.—CREE. 40 sq. mi.						
12.—DEE. 9 sq. mi.						
13.—NITH. 62 sq. mi.						
D	New Cumnock(Ayr Sanator'm).Dr. E. E. Prest, per S.M.S.	5	1	0 850	1437	56.56 245
D	New Cumnock (Power Station) James Jack, Esq.	5	1	0 764	1702	67.00 178
14.—INSULAR. 1 sq. mi.						
	Ailsa Craig .....Board of Northern Lights	3	5	0 ..	737	29.02 171
RENFREW. (Area, 241 sq. mi.)						
1.—CLYDE—Right Bank Tributaries. 3 sq. mi.						
2.—CLYDE—Left Bank Tributaries. 194 sq. mi.						
	Lochwinnoch (Garthland) .....H. Macdowall, Esq.	5	0	11 150	1831	72.10 235
	GorbalsDist WW(NetherCairn) J.R.Sutherland, Esq., C.E.	12	0	5 700	1588	62.50 ..
	GorbalsDist W.W.(Middleton) J.R.Sutherland, Esq., C.E.	12	0	5 550	1463	57.60 ..
	GorbalsDist.W.W.(Ryat Lynn) J.R.Sutherland, Esq., C.E.	8	0	5 310	1328	52.30 ..
	GorbalsDist.WW(Waulk Glen) J.R.Sutherland, Esq., C.E.	12	0	5 280	1292	50.85 ..
	Paisley W.W. (Muirhead) ....James Lee, Esq., C.E. ...	12	1	0 482	1576	62.05 ..
	Paisley W.W. (Springside) ....James Lee, Esq., C.E. ...	12	1	0 532	1778	70.01 ..
	Paisley WW(BackThornleymuir) James Lee, Esq., C.E. ...	12	1	0 646	1395	54.93 ..
	Paisley W.W. (Staneley) .....James Lee, Esq., C.E. ...	12	1	0 190	1139	44.84 ..

DIVISION XIV.—SOUTH WESTERN COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.				Depth of Rain.		Days with ·01 in or more
		Diam.	Height Above Ground Sea Level			1918		
RENFREW—(con.)		in.	ft.	in.	feet	mm.	inches	
2.—CLYDE—Left Bank Tributaries—(con.)								
D Howwood (Midton House)	Andrew McNab, Esq.	5	1	6	231	1931	76·01	230
Pollokshaws (Rouken Glen)	J. Whitton, Esq.	5	0	6	..	1206	47·48	221
D Pollokshaws (Pollok House)	Sir J. Stirling Maxwell, Bt.	5	1	0	45	1086	42·77	235
D Glasgow (Queen's Park)	J. Whitton, Esq.	8	0	9	114	980	38·57	212
Glasgow (Maxwell Park)	J. Whitton, Esq.	5	0	6	69	1080	42·51	205
Kilbarchan (Milliken Park)	M. Douglas Anderson, Esq.	6	1	6	75	1179	46·40	..
D Kilbarchan (Glentyan) (R)	R. H. Hunter, Esq.	8	3	9	285	1462	57·54	243
D Paisley (The Coats Observatory)	Observatory Committee	8	1	0	107	1226	48·26	239
D Houston Manse	Rev. George Muir	5	1	0	103	1362	53·64	233
D Inchinnan (R.A.F. Station)	The Air Ministry	8	0	10	105	1009	39·69	232
Shaws W.W. (Duchall Moor)	J. Macalister, Esq.	6	1	0	1150	2055	80·90	..
Shaws W.W. (Creuch Hill)	J. Macalister, Esq.	6	1	0	1350	2357	92·80	..
Shaws W.W. (Green Water)	J. Macalister, Esq.	6	1	0	788	2030	79·92	..
Kilmacollm	Mr. R. Blackwood	5	1	0	300	1604	63·17	224
D Shaws W.W. (Gryfe Reservoir)	J. Macalister, Esq.	6	1	0	640	1914	75·37	243
D Shaws W.W. (Mansfield)	J. Macalister, Esq.	5	1	0	573	1849	72·81	244
Shaws W.W. (Darndaff Moor)	J. Macalister, Esq.	5	1	0	850	1920	75·59	..
Bishopton (Ingliston)	D. Cross, Esq.	5	1	0	195	1279	50·34	..
3.—FIRTH OF CLYDE. 34 sq. mi.								
Shaws W.W. (Largs Road)	J. Macalister, Esq.	5	1	0	910	1468	57·80	..
Doughiehill Filters (Pt. Glas. W.W.)	James Murray, Esq.,	8	1	6	540	1594	62·77	..
Parkhill Filters (Pt. Glas. W.W.)	James Murray, Esq.	8	1	6	275	1395	54·91	..
D Shaws W.W. (Compensation Res.)	J. Macalister, Esq.	5	1	0	600	2007	79·03	243
D Shaws W.W. (Loch Thom)	J. Macalister, Esq.	5	1	0	643	1900	74·80	242
Shaws W.W. (Shielhill)	J. Macalister, Esq.	6	1	0	962	2073	81·60	..
Shaws W.W. (Spango Burn)	J. Macalister, Esq.	6	1	0	757	2162	85·10	..
D Shaws W.W. (Hole Glen)	J. Macalister, Esq.	5	1	0	603	1947	76·65	270
D Shaws W.W. (New Yett's Dam)	J. Macalister, Esq.	5	1	0	800	1835	72·25	272
Port Glasgow (Broadfield)	Miss Harrington	8	1	0	250	1516	59·69	231
Greenock (Prospect Hill)	J. Macalister, Esq.	5	1	0	200	1816	71·50	247
M Langbank (East Bank Gardens)	A. Cross, Esq.	5	2	6	150	1366	53·78	..
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 (Kilmahew)	Capt. Claud A. Allan . . .	5	1	0	130	1199	47·22	220
D Helensburgh (Ferniegair)	H. M. Ross, Esq., C.E. . .	8	1	0	22	1459	57·46	247
D Helensburgh (Valve House)	H. M. Ross, Esq., C.E. . .	8	1	0	293	1555	61·22	249
Garelochhead (Aikenshaw)	Mr. W. S. Turnbull	6	1	0	32	1664	65·50	..
D Arrochar (Glen Loin)	Mrs. Little	5	1	0	50	1951	76·80	279
3.—CLYDE—Leven. 149 sq. mi.								
D Dumbarton (Leven Shipyard)	Messrs. W. Denny & Bros. .	5	1	0	9	1210	47·62	216
Kilpatrick (Burncrooks Res.) 1.	T. L. Rae, Esq., C.E. . .	5	1	0	835	1197	47·12	..
Kilpatrick (Burncrooks Res.) 2.	T. L. Rae, Esq., C.E. . .	5	1	0	920	1614	63·54	..
D Renton (Carman Filters)	Mr. Chas. Brown	8	4	0	292	1268	49·94	222

DIVISION XV.—WEST MIDLAND COUNTIES—(*continued*).

STATIONS.	AUTHORITIES.	Rain Gauge.		Depth of Rain.	Days with ·01 in. or more
		Diam.	Height Above Ground Sea Level		
				1918	
DUMBARTON—(con.)		in.	ft.	mm.	inches
3.—CLYDE—Leven—(con.)					
D Glen Finlas Reservoir ... No. 7	George Beaton, Esq.	12	0 9	820	2270 89·37 229
M Glen Finlas Reservoir ... No. 1	George Beaton, Esq.	5	0 9	820	2078 81·83 ..
M Glen Finlas Reservoir ... No. 2	George Beaton, Esq.	5	0 9	1200	2055 80·92 ..
M Glen Finlas Reservoir ... No. 3	George Beaton, Esq.	5	0 9	1600	2238 88·10 ..
M Glen Finlas Reservoir ... No. 4	George Beaton, Esq.	5	0 9	2000	2071 81·53 ..
M Glen Finlas Reservoir ... No. 5	George Beaton, Esq.	5	0 9	1600	1991 78·38 ..
M Glen Finlas Reservoir ... No. 6	George Beaton, Esq.	5	0 9	1200	1842 72·54 ..
4.—CLYDE—Right Bank Tributaries. 59 sq. mi.					
D Drumchapel (Wasdale)	F. C. Thomson, Esq.	5	1 0	49	990 38·97 244
Milngavie (Douglaston)	T. Ripley Ker, Esq.	5	1 0	157	1091 42·94 218
D Duntocher (Cochno Filters) ...	T. L. Rae, Esq., C.E.	5	1 0	400	1128 44·39 207
Kilpatrick Hills (Greenside Res.)	T. L. Rae, Esq., C.E.	5	1 0	876	1438 56·62 ..
Kilpatrick Hills (Loch Cochno)	T. L. Rae, Esq., C.E.	5	1 0	909	1425 56·12 ..
Kilpatrick Hills (Jaw Reservoir)	T. L. Rae, Esq., C.E.	5	1 0	912	1377 54·20 ..
STIRLING. (Area, 463 sq. mi.)					
1.—FORTH—Right Bank Tributaries. 263 sq. mi.					
Muiravonside Ho. [Linlithgow] ..	Mr. C. Leeder	5	4 8	175	891 35·09 ..
D Polmont (Vellore)	(R) W. Brown, Esq.	8	0 8	320	884 34·79 200
D Bonnybridge (Road Exper. Stat.)	W. Ballantine, Esq.	5	1 3	150	1041 40·99 185
D Falkirk (Inglewood, Laurieston)	W. Ballantine, Esq.	5	1 3	133	936 36·83 195
D Falkirk (Westbank)	Garden A. Nimmo, Esq.	5	0 9	75	936 36·84 204
Falkirk (Westbank)	Lawn A. Nimmo, Esq.	5	0 9	105	892 35·13 200
Falkirk (Ardenlea)	J. Aitken, Esq., F.R.S.	5	1 0	105	956 37·64 201
Falkirk (Kerse)	C. Brown, Esq.	8	1 0	18	841 33·10 ..
Little Denny Reservoir	C. Massie, Esq.	8	1 0	326	1252 49·29 ..
Little Denny Filters	C. Massie, Esq.	8	1 0	268	1276 50·23 ..
Kilsyth (Faughlin Res.)	C. Massie, Esq.	8	1 0	707	1538 60·56 ..
Earlsburn Reservoir	C. Massie, Esq.	8	1 0	1202	1533 60·37 ..
D Stirling (Touch W.W.) No. 3.	A. H. Goudie, Esq.	8	1 9	759	1310 51·59 229
D Stirling (Touch W.W.) .No. 2.	A. H. Goudie, Esq.	8	1 4	707	1260 49·60 230
D Stirling (Touch Res.) ... No. 1.	A. H. Goudie, Esq.	8	1 0	455	1351 53·20 230
Stirling (Touch House)	Sir D. A. S. Steuart, Bart.	5	1 0	35	1269 49·95 ..
Stirling (Met. Station)	J. Fyfe, Esq., <i>cs pers.</i> M.S.	..	..	74	991 39·01 212
Stirling (Victoria Place)	R. Kidston Esq., <i>FRS, pers</i> SMS	5	2 10	100	970 38·20 ..
Buchlyvie (The Manse)	late Rev. J. A. Macdonald	5	1 3	118	1326 52·20 242
Gargunnoch House	Mr. D. McNeill	5	0 4	85	1037 40·83 ..
D Kippen (Arngomery)	Mr. P. McCowan	5	4 2	150	1151 45·31 150
Duchray Valley (Ben Lomond) ..	J. R. Sutherland, Esq., C.E.	8	0 6	1800	2094 82·45 ..
D Duchray Valley (Glen Dhu) ...	J. R. Sutherland, Esq., C.E.	8	1 0	500	2310 90·95 207
D Duchray Valley (Comer)	J. R. Sutherland, Esq., C.E.	8	1 0	600	2515 99·00 209
Duchray Valley (Achaidh Burn)	J. R. Sutherland, Esq., C.E.	8	1 0	1200	2581 101·60 ..
Duchray V (Head of Main Stream)	J. R. Sutherland, Esq., C.E.	8	1 0	950	2389 94·05 ..
2.—FORTH—Teith. 5 sq. mi.					
D Stronachlachlar (Invergyle)	J. R. Sutherland, Esq., C.E.	8	1 0	376	2247 88·45 215
3.—FORTH—Left Bank Tributaries. 15 sq. mi.					
D Bridge of Allan (The Lea)	Laurence Pullar, Esq.	5	1 0	80	901 35·46 229
4.—CLYDE—Leven. 128 sq. mi.					
Strathblane (Blane field)	J. R. Sutherland, Esq., C.E.	8	1 0	250	1331 52·40 ..
D Killearn (Achnagowan)	Miss A. Guthrie-Smith ..	5	0 10	332	1681 66·18 199

DIVISION XV.—WEST MIDLAND COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.				Depth of Rain.		Days with ·01 in. or more	
		Diam.	Height Above Ground Sea Level			1918			
STIRLING—(con.)									
4.—CLYDE—Leven—(con.)									
Loch Arklet (Corriehichon)	J. R. Sutherland, Esq., C.E.	8	0	6	870	2183	85·95	..	
Loch Arklet (Corriearklet)	J. R. Sutherland, Esq., C.E.	8	0	6	950	2390	94·10	..	
5.—CLYDE—Right Bank Tributaries. 52 sq. mi.									
D Torrance (Glenorchard)	Miss E. Bartholomew	5	1	6	200	965	38·00	168	
Strathblane (Mugdock Res.)	J. R. Sutherland, Esq., C.E.	8	0	6	320	1201	47·30	..	
M Strathblane (Craigbarnet)	Capt. Miller Stirling, R.N.	5	0	6	300	1272	50·10	..	
D Kilsyth (Innsbridge)	J. I. Little, Esq.	5	11	0	202	1391	54·76	199	
Kilsyth (Corrie Reservoir)	J. I. Little, Esq. <i>per</i> S.M.S.	..	..	..	..	1359	53·50	..
BUTE. (Area, 218 sq. mi.)									
1.—ISLE OF BUTE. 50 sq. mi.									
D Rothesay (Arden Craig)	J. Davidson, Esq.	5	1	0	201	1526	60·06	269	
Rothesay (Arden Craig)	J. Davidson, Esq. <i>per</i> M.O.	5	1	0	201	1520	59·85	269	
Port Bannatyne (Ettrickdale)	Col. M. R. Gray Buchanan	5	1	0	190	1416	55·76	255	
2.—CUMBRAES. 4 sq. mi.									
D Great Cumbrae (Millport)	J. Peden, Esq.	5	1	0	12	1180	46·46	246	
3.—ARRAN. 164 sq. mi.									
Pladda	Board of Northern Lights	..	..	..	130	1235	48·62	206
Holy Island (Pillar Rock)	Board of Northern Lights	3	0	3	46	723	28·48?	..	
D Shiskine Schoolhouse	R. T. Irvine, Esq.	5	1	0	107	1280	50·38	222	
D Dougarie Lodge	David Reside, Esq.	5	1	0	10	1290	50·79	232	
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	2138	84·19	260	
Morvern (Drimnin)	Mrs. Gordon	5	1	0	225	1691	66·57	268	
D Loch Sunart (Glenborrodale)	T. J. A. Armstrong, Esq.	5	0	2	60	1914	75·35	267	
Ardnamurchan	Board of Northern Lights	8	4	3	180	1352	53·24	..	
3.—LOCH LINNHE—Right Bank Tributaries. 139 sq. mi.									
D Morvern (Kingairloch)	G. Herbert Strutt, Esq.	5	1	0	40	2914	114·71	229	
D Ardgor House	Capt. A. J. H. Maclean of Ardgor	5	0	10	60	2758	108·60	265	
4.—LOCH LINNHE—Left Bank Tributaries. 165 sq. mi.									
Loch Creran (Barcaldine)	G. Haig, Esq.	5	0	4	50	1680	66·15	227	
Duror (The Rectory)	Rev. E. J. Benwell	5	1	0	120	2139	84·23	236	
D Duror (Achara)	Mr. W. D. Stewart	5	1	6	50	2078	81·81	242	
Ballachulish (Glencoe Gardens)	J. D. Sutherland, Esq.	8	1	0	20	1860	73·21	..	
Glenleven (Blackwater House)	4 British Aluminium Co., Ltd.	8	1	0	1069	2085	82·09	..	
D Glenleven (Blackwater Dam, S.)	2 British Aluminium Co., Ltd.	8	1	0	1072	2349	92·48	268	
D Glenleven (Kinlochleven) No. 1	British Aluminium Co., Ltd.	8	1	0	140	2382	93·77	262	
Corran Lighthouse	Board of Northern Lights	3	1	6	38	2405	94·69	248	
5.—LOCH ETIVE. 197 sq. mi.									
D Connel Ferry (Ach-na-cloich)	W. D. Fordyce Esq. <i>per</i> SMS	..	..	..	..	1627	64·05	222
D Glen Etive	W. D. Fordyce Esq. <i>per</i> SMS	..	..	..	50	2510	98·82	191
6.—LOCH ETIVE—Loch Awe. 319 sq. mi.									
D Loch Awe (Ford)	J. Boyd, Esq.	8	1	0	148	1948	76·68	261	
D Loch Awe (Dalavich)	J. Boyd, Esq.	8	1	0	260	2118	83·39	256	
D Dalmally (Manse of Glenorchy)	Rev. Farquhar MacRae	5	1	0	150	2090	82·27	247	
7.—FIRTH OF LORNE. 112 sq. mi.									
D Kilmelfort (Arduaine)	J. A. Campbell, Esq.	5	0	10	23	1592	62·66	237	
D Oban	Dr. E. Bailly	8	1	0	17	1477	58·15	237	

DIVISION XV.—WEST MIDLAND COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.				Depth of Rain.		Days with ·01 in. or more	
		Diam.	Height Above Ground Sea Level			1918			
ARGYLL—(con.)		in. ft. in. feet				mm. inches			
8.—SOUND OF JURA. 163 sq. mi.									
Lochgilphead (Poltalloch)	Mr. D. S. Melville, <i>per</i> S.M.S.	5	1	2	135	1733	68·23	248	
D Ardfern (Innisaeg)	Mr. John Strang	5	3	7	100	1422	55·99	208	
9.—KINTYRE, WEST. 146 sq. mi.									
Mull of Kintyre	Board of Northern Lights . . . . .	..	..	..	279	889	35·01	172
D Muasdale (Killeen Manse)	Rev. D. J. Macdonald	5	1	0	10	1144	45·06	247	
D Carse	J. Birkmyre, Esq., jun.	6	1	6	20	1328	52·27	259	
10.—KINTYRE, EAST. 177 sq. mi.									
D Campbeltown (South Park)	J. A. Gardiner, Esq.	8	0	10	20	1614	63·53	243	
Campbeltown (Devaar)	Board of Northern Lights . . . . .	..	3	4	120	1417	55·80	164
D Skipness Castle	Mr. D. C. Coutts	5	1	1	14	1277	50·26	236	
11.—LOCH FYNE. 264 sq. mi.									
D Ardrishaig (Canal Office)	L. J. Groves, Esq., C.E.	5	1	6	48	1731	68·16	235	
D Loch Fyne (Castle Lachlan)	J. McLachlan, Esq. <i>per</i> S.M.S.	5	1	0	42	1804	71·03	241	
Craræ (Kennels)	Mr. W. T. Rae, <i>per</i> S.M.S. . . . .	..	..	..	20	1912	75·28	..
D Loch Fyne (Brenchoillie)	A. E. Lowis, Esq.	5	1	0	240	2051	80·76	169	
D Inveraray Castle Gardens	A. E. Lowis, Esq.	5	1	0	40	2244	88·35	241	
Inveraray (Stronshira)	Rev. Gillespie Campbell	5	1	5	10	2570	101·20	..	
D Ardkinglas	Mr. J. Payne	8	1	6	37	1907	75·07	232	
D Glen Aray (Ladyfield)	A. E. Lowis, Esq.	5	0	9	400	2396	94·35	198	
Glen Shira (Drimlie)	Mr. Dugald McIntyre	5	1	6	400	2415	95·08	..	
12.—FIRTH OF CLYDE & COWAL. 242 sq. mi.									
D Tighnabruaich (Wellpark)	R. Paton, Esq.	12	5	0	50	1479	58·22	202	
D Dunoon (Castle Gardens)	W. Rodger, Esq., C.E.	12	35	0	56	1992	78·41	226	
D Dunoon (Reservoir)	W. Rodger, Esq., C.E.	12	3	6	245	2104	82·82	235	
D Dunoon (Redhurst)	Dr. J. Banks	5	1	0	60	2169	85·40	224	
D Holy Loch (Ardnadam)	Rev. J. Cairns Mitchell	5	1	0	66	2173	85·55	242	
D Loch Eck (Benmore)	Mr. R. Greenlaw	5	1	3	40	2494	98·19	219	
D Lochgoilhead (Nuthill)	G. Murray Knox, Esq.	5	1	0	15	1948	76·69	234	
13.—CLYDE—Leven. 4 sq. mi.									
14.—INSULAR. 900 sq. mi.									
D Islay (Ardbeg)	Colin E. Hay, Esq.	5	7	0	46	1331	52·40	257	
Islay (Rhinn)	Board of Northern Lights	7	3	6	150	1055	41·54	215	
Islay (Lochindaul)	Board of Northern Lights	3	0	6	52	1161	45·71	189	
Islay (McArthur's Head)	Board of Northern Lights	3	0	4	128	1742	68·57	203	
D Islay (Eallabus)	J. Forbes, Esq.	5	1	0	68	1436	56·52	259	
Islay (Rhuvaal)	Board of Northern Lights	3	1	3	147	917	36·12	186	
D Jura (Ardfin)	A. J. Campbell, Esq.	5	1	0	160	1594	62·76	236	
Fladda Lighthouse	Board of Northern Lights	3	1	0	42	1594	62·74	201	
Lismore (Mousedale)	Board of Northern Lights	7	3	10	105	1340	52·75	212	
D Eriska (Ledaig)	Mr. J. B. Trotter <i>per</i> S.M.S.	5	1	6	30	1625	63·96	243	
D Mull (Iona Manse)	Rev. A. Macmillan	5	1	2	45	1215	47·83	230	
D Mull (Bunessan)	Duncan Cameron, Esq.	5	1	4	50	1309	51·55	245	
D Mull (Ulva)	F. W. Clark, Esq.	5	1	0	30	1762	69·38	271	
D Mull (Knock)	Duncan Cameron, Esq.	5	1	4	50	2681	105·56	200	
D Mull (Gruline)	J. W. Melles, Esq.	8	1	0	101	2327	91·61	262	
D Mull (Quinish)	J. N. Forsyth, Esq.	5	1	3	35	1653	65·07	260	
Mull Sound of	Board of Northern Lights	3	1	4	55	1794	70·64	224	

DIVISION XVI.—EAST MIDLAND COUNTIES.

STATIONS.	AUTHORITIES.	Rain Gauge.				Depth of Rain.		Days with ·01 in. or more
		Diam.	Height Above Ground Sea Level			1918		
CLACKMANNAN. (Area, 55 sq. mi.)		in. ft. in. feet				mm.	inches	
1.—FORTH, LOWER—Left Bank Tributaries. 55 sq. mi.								
D Alloa House Gardens	Earlof Mar & Kellie, K.T. . .	5	2	6	40	796	31·33	168
Alloa W.W. (Gartmorn Res.) . .	Andrew Mackie, Esq., C.E. . .	11	1	0	172	796	31·32	..
D Dollar (Wellhall, Dollarbeg) . . .	James Bleloch, Esq. . . .	5	0	9	265	952	37·49	238
KINROSS. (Area, 87 sq. mi.)								
1.—FORTH, LOWER—Left Bank Tributaries. 15 sq. mi.								
Blairingone Manse [Dollar]	Rev. J. F. Cameron	5	1	6	296	977	38·46	212
2.—LEVEN & C. 67 sq. mi.								
Blairadam Wood [Kelty]	D. Mackenzie, Esq., C.E. . .	8	0	5	761	1118	44·00	171
Loch Leven Sluice	Mr. David Hay	8	0	9	306	771	30·35	..
D Milnathort (Ledlanet)	J. J. Beveridge, Esq. . . .	5	1	0	750	1158	45·61	175
3.—EDEN. 2 sq. mi.								
4.—TAY—Earn. 8 sq. mi.								
FIFE. (Area, 505 sq. mi.)								
1.—FORTH, LOWER—Left Bank Tributaries. 66 sq. mi.								
D Rosyth (H. M. Dockyard)	The Supt. Engineer	8	1	0	53	636	25·06	182
D Kincardine (Tulliallan)	J. C. Wilson, Esq.	5	1	0	80	804	31·67	159
D Dumferline (Victoria Place) . . .	J. Blyth, Esq.	5	1	2	365	816	32·12	188
D Culross (Westgrange)	J. J. Dalgleish, Esq. . . .	5	0	2	116	749	29·50	192
Culross (Luscar House)	No. 1. Col. A. Mitchell	5	0	10	430	807	31·77	..
Culross (Luscar House)	No. 2. Col. A. Mitchell	5	0	10	430	808	31·80	..
Carnock (Craigluscar)	P. C. Smith, Esq.	12	0	4	280	838	33·00	..
2.—LEVEN & C. 208 sq. mi.								
Dunferline (Fordell House)	Earl of Buckinghamshire . .	5	1	0	250	752	29·61	..
D Kirkcaldy (St. Peter's Rectory) . .	Rev. John S. Begg	5	1	0	85	697	27·44	184
Kirkcaldy (Muttonhall Farm) . . .	G. Donaldson, Esq.	5	1	0	267	789	31·08	165
D Cowdenbeath (Stenhouse St.) . .	J. S. Rae, Esq.	5	1	0	474	895	35·25	187
Cleish Hills (Deanhead Farm) . . .	J. S. Rae, Esq.	5	1	0	725	835	32·86	..
M Cleish Hills (Craigaverral)	J. S. Rae, Esq.	5	1	0	660	861	33·90	..
Cleish Hills (Roscobie Res.) . . .	J. S. Rae, Esq.	5	1	0	660	938	36·91	..
Cleish Hill (Loch Glow Res.) . . .	D. Mackenzie, Esq., C.E. . .	8	0	7	897	1146	45·12	171
Leslie (Lothrie Reservoir)	Mr. R. Ritchie, <i>per</i> S.M.S. . .	5	0	5	702	840	33·06	..
D Elie House (The Gardens)	Mr. A. A. Law	5	0	10	55	636	25·03	173
D Elie (The Castle)	Miss E. E. Scott Moncrieff . .	5	0	9	..	645	25·39	186
Largo (Carlton)	Mr. E. Tate	5	1	6	150	746	29·35	178
D Colinsburgh (Balcarres)	Mr. J. M. Paul	5	1	0	300	701	27·61	182
Colinsburgh (Lathallan House) . .	Dr. W. H. Bryce <i>per</i> S.M.S. . .	5	1	0	505	645	25·38	178
Carnbee (Ovenstone W.W.)	A. P. Watson, Esq.	5	1	0	168	602	23·68	..
3.—EDEN & C. 205 sq. mi.								
Ceres (Woodburne)	Ralph Richardson, Esq. . . .	5	0	9	300	728	28·67	..
D Ceres (Castlebank)	Mr. Alex. Smith	5	2	0	280	759	29·88	211
D Ceres (St. Helen's)	Rev. Robert Dick	5	1	6	265	741	29·16	200
D Cameron Water Works	W. C. Eddowes, Esq., C.E. . .	5	1	0	478	681	26·81	163
Cupar (Rankeillour)	Mr. J. McLaren, <i>per</i> S.M.S. . .	..	..	..	240	663	26·12	..
Cupar (Rankeillour)	Major J. Kerr	5	1	0	240	736	28·98	171
D Cupar (Fife & Kinross Asylum) . .	Dr. J. H. Skeen	5	1	0	210	647	25·47	190
D St. Andrews (Water Works)	W. C. Eddowes, Esq., C.E. . .	5	1	0	217	633	24·92	177
D St. Andrews (Queen's Gardens) . .	Miss I. J. R. Macadam	5	1	0	55	610	24·03	177
St. Andrews	W. Watson, Esq. <i>per</i> MOS . . .	..	..	..	20	613	24·14	153

DIVISION XVI.—EAST MIDLAND COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.				Depth of Rain. 1918	Days with ·01 in. or more	
		Diam.	Height Above Ground Sea Level					
		in.	ft.	in.	feet	mm.	inches	
FIFE—(con.)								
3.—EDEN & C—(con.)								
Kilmany (Lochmalony)	W. Marshall, Esq.	5	0	6	260	709	27·92	..
4.—FIRTH OF TAY. 25 sq. mi.								
D Newport (Tayfield)	W. Berry, Esq.	5	0	7	100	707	27·85	145
D Tayport (Lighthouse)	J.H. Thompson, Esq., C.E.	5	1	0	27	651	25·64	191
5.—TAY—Earn. 1 sq. mi.								
6.—INSULAR.								
Inchkeith	Board of Northern Lights ..	..	..	..	160	541	21·31	..
Isle of May	Board of Northern Lights ..	6	3	0	..	437	17·22	155
PERTH. (Area, 2535 sq. mi.)								
1.—FORTH—Right Bank Tributaries. 17 sq. mi.								
2.—FORTH, UPPER—Left Bank Tributaries. 64 sq. mi.								
D Aberfoyle (The Inn)	J.R. Sutherland, Esq., C.E.	8	0	6	60	1513	59·55	207
D Loch Dhu	J.R. Sutherland, Esq., C.E.	8	0	6	325	2186	86·05	207
Ledard	J.R. Sutherland, Esq., C.E.	8	0	6	1500	2125	83·65	..
3.—FORTH—Teith. 221 sq. mi.								
Ochertyre	S. D. W. Stewart, Esq.	5	0	8	31	926	36·45	..
Loch Drunkie	J.R. Sutherland, Esq., C.E.	8	0	6	420	1511	59·50	..
Ben Venue (Glasaioile)	J.R. Sutherland, Esq., C.E.	8	1	0	1150	2195	86·40	..
D Loch Venachar	J.R. Sutherland, Esq., C.E.	8	0	6	275	1464	57·65	198
D Bridge of Turk	J.R. Sutherland, Esq., C.E.	8	0	6	275	1599	62·95	181
Loch Katrine (Tunnel Hill Top) ..	J.R. Sutherland, Esq., C.E.	8	0	6	880	2164	85·20	..
Ben Ledi	No. 2. J.R. Sutherland, Esq., C.E.	8	0	6	1400	1742	68·60	..
D Achnahard	J.R. Sutherland, Esq., C.E.	8	1	0	474	1682	66·20	181
Callander (Lenny House)	late J. H. Buchanan, Esq.	5	0	6	340	1366	53·80	..
Strone Bridge	J.R. Sutherland, Esq., C.E.	8	1	0	380	1874	73·79	..
Glen Meann	J.R. Sutherland, Esq., C.E.	8	1	0	800	1995	78·55	..
Glen Finglas	J.R. Sutherland, Esq., C.E.	8	1	0	1200	1980	77·95	..
D Glengyle	J.R. Sutherland, Esq., C.E.	8	0	6	380	2447	96·35	234
Upper Glengyle	J.R. Sutherland, Esq., C.E.	8	1	0	750	2670	105·10	..
Allt a' Choin	J.R. Sutherland, Esq., C.E.	8	1	0	1250	2559	100·75	..
Balquhiddie (Blaircreach)	J. Carnegie, Esq.	5	1	0	460	2546	100·23	..
D Balquhiddie (Stronvar)	J. Carnegie, Esq.	5	1	0	422	1931	76·03	213
4.—FORTH, LOWER—Left Bank Tributaries. 107 sq. mi.								
Dunblane (Kippenross)	A. H. Anderson, Esq.	8	1	3	237	1142	44·97	235
Dunblane (Kippendavie)	A. H. Anderson, Esq.	8	2	9	300	1057	41·60	..
Glendevon (Glenquey Res.)	D. Mackenzie, Esq., C.E.	11	0	11	945	1405	55·30	..
D Glendevon (Tormaukin)	Mr. W. Phillips	5	1	6	770	1497	58·93	198
Glendevon (Glensherup)	P. C. Smith, Esq.	12	0	4	945	1605	63·19	..
5.—LEVEN. 1 sq. mi.								
6.—EDEN. 4 sq. mi.								
7.—TAY—Earn. 376 sq. mi.								
Slateford Burn (Shire End) ...	Messrs. Leslie & Reid, C.E.	8	..	..	930	1147	45·14	..
Slateford Burn (Whitehill) ...	Messrs. Leslie & Reid, C.E.	8	..	..	810	1085	42·71	..
Upper Farg (Plains)	Messrs. Leslie & Reid, C.E.	8	..	..	900	956	37·64	..
Upper Farg (Heatherieleys Q'ry) ..	Messrs. Leslie & Reid, C.E.	8	..	..	715	990	38·97	..
Upper Farg (Main Bank)	Messrs. Leslie & Reid, C.E.	5	..	..	..	812	31·96	..
Auchterarder (Belhie)	Miss D. Cairns	5	0	10	100	819	32·26	186
Abernethy (Ayton House)	Mr. J. Leslie, per S.M.S.	5	0	11	120	838	32·99	..
D Bridge of Earn (Ballendinck) ..	Capt. O. A. Taylor	5	1	2	30	759	29·88	191

DIVISION XVI.—EAST MIDLAND COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.				Depth of Rain.		Days with '01 in. or more
		Diam.	Height Above Ground Sea Level			1918		
PERTH—(con.)		in.	ft.	in.	feet	mm.	inches	
7.—TAY—Earn—(con.)								
D Lochearnhead (Edenchip)	Sir Malcolm Macgregor Bt.	5	1	0	542	1782	70·15	248
D Crieff (Drummond Terrace)	Col. J. Dinwoodie	5	1	0	330	1003	39·48	219
Crieff (Strathearn Hydro)	Dr. G. Meikle, <i>per</i> S.M.S.	5	1	0	478	964	37·96	234
8.—TAY—Almond & c. 149 sq. mi.								
D Perth (Craigie Road)	Sydney Wilson, Esq.	5	1	0	56	791	31·15	201
D Perth (Wellshill Cemetery)	J. Ritchie, Esq., jun.	5	1	0	77	755	29·74	193
9.—TAY—Strathday below Dunkeld. 33 sq. mi.								
Murthly (Douglasfield)	W. A. Rae, Esq.	5	0	6	237	936	36·84	..
Murthly (Glendelvine)	A. P. Lyle, Esq. <i>per</i> S.M.S.	5	0	9	240	716	28·20	..
D Dunkeld (Snaigow)	W. H. Cox, Esq.	5	1	0	370	861	33·91	196
10.—TAY—Bran. 81 sq. mi.								
D Dunkeld (Inver)	Charles McIntosh, Esq.	5	1	0	183	1018	40·06	224
11.—TAY—Strathday above Dunkeld. 95 sq. mi.								
D Aberfeldy (Dall Avon)	Dr. N. D. Mackay	5	1	0	320	914	35·97	217
D Aberfeldy (Dunros)	H. W. Johnston, Esq.	5	1	0	400	850	33·48	230
12.—TAY—Loch Tay. 241 sq. mi.								
D Killin (The Manse)	Rev. G. W. Mackay	5	1	0	400	1618	63·72	218
D Killin (Morenish Lodge)	Mr. J. Stewart, <i>per</i> S.M.S.	5	1	0	200	1715	67·53	203
D Kenmore (The Manse)	Rev. W. A. Gillies.	5	1	0	550	1098	43·23	217
13.—TAY—Lyon. 142 sq. mi.								
Fortingall (Glenlyon House)	Mr. J. W. Ford	6	1	0	425	1030	40·53	..
14.—TAY—Tummel. 587 sq. mi.								
D Loch Rannoch (The Barracks)	Mr. D. Macdonald	5	1	0	690	1274	50·17	220
D Loch Rannoch (Dall)	Mr. D. Robertson, jun.	5	1	0	772	1259	49·56	208
D Fincastle House)	C. R. Barbour, Esq.	5	1	0	980	976	38·44	218
D Trinafour (Druimchruidh)	A. D. Cameron, Esq.	5	1	0	850	1227	48·31	230
Blair Atholl	Mr. D. McLachlan.	5	1	0	420	865	34·06	..
15.—TAY—Isla. 282 sq. mi.								
D Coupar Angus	A. Reid Esq.	5	2	2	183	721	28·37	167
D Blairgowrie (Kinloch Manse)	Serj. Ian Milne	5	1	0	280	762	30·02	202
D Kirkmichael (Ballintuim Ho.)	Miss M. A. Macdonald	5	1	4	700	983	38·69	242
16.—TAY—Left Bank Tributaries. 51 sq. mi.								
Kinfauns (Balthayock)	R. Wylie Hill, Esq.	5	1	6	323	706	27·81	..
Dunsinnan	J. Mackay Bernard, Esq.	5	0	11	380	772	30·40	..
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	751	29·55	193
Glamis Castle.	Mr. T. Wilson, <i>per</i> S.M.S.	5	0	9	250	659	25·94	..
D Forfar (Lilyfield)	D. M. Mackie, Esq.	5	0	5	225	754	29·69	176
Forfar (Orchardbank Sew. Frm.)	A. Watterston, Esq.	4	0	9	214	609	23·98	..
D Kirriemuir (Lintrathen)	G. Baxter, Esq., C.E.	8	1	0	700	776	30·53	208
M Kirriemuir (Lintrathen)	G. Baxter, Esq., C.E.	8	1	0	700	792	31·16	..
M Kirriemuir (Balnakeilly)	G. Baxter, Esq., C.E.	8	1	0	700	818	32·19	..
M Kirriemuir (Creich Hill, S.)	G. Baxter, Esq., C.E.	8	1	0	1482	876	34·50	..
M Kirriemuir (Creich Hill, Top)	G. Baxter, Esq., C.E.	8	1	0	1500	798	31·40	..

DIVISION XVI.—EAST MIDLAND COUNTIES—(continued).

STATIONS	AUTHORITIES.	Rain Gauge.				Depth of Rain. 1918	Days with 0.1 in. or more
		Diam.	Height Above Ground SeaLevel				
FORFAR—(con.)		in. ft. in. feet				mm.	inches
1.—TAY—Isle—(con.)							
M Kirriemuir (Creich Hill, N.) . . .	G. Baxter, Esq., C.E. . .	8	1	0	1491	886	34.90 . .
2.—FIRTH OF TAY. 80 sq. mi.							
D Buddonness (Low Light)	J. H. Thompson, Esq., C.E. .	5	1	0	27	726	28.59 196
D Dundee (Harbour)	J. H. Thompson, Esq., C.E. .	5	0	10	14	658	25.90 190
Dundee (Eastern Necropolis)	Mr. A. Macrae	3	1	0	199	702	27.65 . .
D Dundee (Eastern Necropolis)	Mr. A. Macrae	5	1	0	199	711	28.00 198
Dundee (Dens Works)	Messrs. Baxter Bros., Ltd. .	5	on	roof	119	685	26.98 273
Dundee (Camperdown Works)	Messrs. Cox, Bros., Ltd. .	5	1	2	290	740	29.13 180
Dundee (Inniscarra)	H. G. Walker, Esq., <i>per</i> SMS . .	..	..	..	130	691	27.22 . .
Dundee (Balruddery)	J. Martin White, Esq. . .	5	1	0	266	693	27.28 . .
D Dundee (Kirkton of Mains)	Alex. Duncan, Esq. . .	8	1	0	244	678	26.70 180
Murroes (Craig Mills)	John Grant, Esq.	6	1	6	310	735	28.95 . .
3.—SOUTH ESK & C. 371 sq. mi.							
Carnoustie	D. M. Ramsay, Esq., <i>pr</i> SMS .	8	1	0	39	626	24.64 211
D Craigton	G. Baxter, Esq., C.E. . .	8	1	0	484	753	29.65 175
M Craigton	G. Baxter, Esq., C.E. . .	8	3	0	484	728	28.67 . .
M Craigton (Hillhead)	G. Baxter, Esq., C.E. . .	8	3	0	570	747	29.41 . .
M Crombie Reservoir	G. Baxter, Esq., C.E. . .	8	3	0	522	790	31.09 . .
D Arbroath (Dishland Hill)	Mr. J. Campbell	5	1	0	69	552	21.74 164
Arbroath (Muirheads Res.)	S. L. Christie, Esq.	5	1	0	251	667	26.27 . .
Forfar (Pitscandly)	W. T. Farquhar, Esq. . .	5	1	9	300	666	26.23 . .
Montroseness	Board of Northern Lights .	3	1	0	124	630	24.80 . .
Montrose	S. L. Christie, Esq., <i>per</i> SMS . .	..	..	..	16	664	26.13 155
Montrose (Melville Gardens)	S. L. Christie, Esq., <i>per</i> SMS .	5	8	0	20	652	25.68 . .
D Forfar W.W. (Den of Ogil)	A. Watterston, Esq., 12x4 .	0	3	633	819	32.26	172
D Glenogil Waterworks	S. L. Christie, Esq.	5	1	0	700	937	36.90 205
Glen Prosen (Pearsie House)	Mr. K. McKenzie, <i>per</i> SMS .	5	1	0	600	896	35.28 . .
Glen Prosen (Lednathie)	Mr. W. G. Lindsay . . .	5	1	0	720	964	37.94 163
Glen Prosen (Balnaboth Gdns.)	Mrs. Ogilvie	5	1	0	965	1125	44.30 . .
4.—NORTH ESK & C. 213 sq. mi.							
Montrose (Sunnyside Asylum)	Dr. C. J. Shaw	5	0	10	200	652	25.67 . .
D Montrose (Kinnaber W.W.)	S. L. Christie, Esq.	5	1	0	38	647	25.47 161
Brechin (Stracathro Gardens)	Mr. A. Dunlop	5	1	0	250	723	28.47 . .

DIVISION XVII.—NORTH EASTERN COUNTIES.

KINCARDINE. (Area, 382 sq. mi.)

1.—NORTH ESK & C. 99 sq. mi.						
Fettercairn (The Burn)	late Col. C. McInroy, C.B.	5	0	11	250	899 35.40 ..
Fettercairn (Police Station)	Mr. A. Mackenzie	5	1	0	230	830 32.67 163
2.—BERVIE, COWIE & C. 139 sq. mi.						
Todhead	Board of Northern Lights	3	4	0	135	841 33.10 ..
D Stonehaven (Mains of Cowie) ..	John Hart, Esq.	5	1	0	93	652 25.65 198
Girdleness	Board of Northern Lights	7	4	0	185	647 25.48 ..
3.—DEE. 144 sq. mi.						
Strachan (Bridge of Dye)	Sir J. R. Gladstone, Bt...	5	1	0	515	912 35.92 197
Crathes (Spyhill)	Lieut. James Smith	5	1	0	510	838 32.99 ..
D Crathes (Crossroad, Durriss) ...	A. Macdonald, Esq.	5	1	0	420	785 30.92 218
Durriss House [Drumoak] ..(R) ..	Mr. A. Reid	5	3	6	200	790 31.12 ..

DIVISION XVII.—NORTH EASTERN COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.				Depth of Rain.		Days with ·01 in. or more
		Diam.	Height Above Ground Sea Level			1918		
KINCARDINE—(con.)		in.	ft.	in.	feet	mm.	inches	
3.—DEE—(con.)								
D Banchory (Invercannie)	Cecil H. Roberts, Esq. C.E.	5	1	0	205	733	28·85	163
Crathes (Pinewood)	Lieut. James Smith . . .	5	1	0	145	731	28·79	190
Crathes Castle	Mr. J. Petrie	5	1	0	240	712	28·02	..
Banchory (Hirn)	Mr. W. Caird	5	1	0	287	698	27·48	..
ABERDEEN. (Area, 1974 sq. mi.)								
1.—DEE. 672 sq. mi.								
Glen Clunie	Cecil H. Roberts, Esq. C.E.	5	1	0	1350	1157	45·55	..
D Glen Muick	Cecil H. Roberts, Esq. C.E.	5	1	0	1370	1126	44·35	219
D Glen Tanner (Aitnach)	Cecil H. Roberts, Esq. C.E.	5	1	0	1260	928	36·55	199
D Braemar (Bank)	A. M. Shirran, Esq. . . .	5	1	0	1114	890	35·03	173
D Braemar (Derry Lodge)	Cecil H. Roberts, Esq. C.E.	5	1	0	1400	1003	39·50	232
D Balmoral Castle Gardens	Mr. J. M. Troup, M.V.O.	5	1	0	927	796	31·33	219
D Abergeldie Castle	Mr. R. F. Chalmers	5	1	0	..	739	29·09	220
D Ballater (Irrigation Farm)	Cecil H. Roberts, Esq. C.E.	5	1	0	637	754	29·68	200
Bienn Bhreac	Cecil H. Roberts, Esq. C.E.	5	1	0	2700	1143	45·00	..
D Glen Gairn (Gairn Shiel Lodge)	Cecil H. Roberts, Esq. C.E.	5	1	0	1100	796	31·34	226
Glen Gairn (Corndavon Lodge)	Cecil H. Roberts, Esq. C.E.	5	1	0	1382	962	37·87	209
D Aboyne	Cecil H. Roberts, Esq. C.E.	5	1	0	412	700	27·54	154
Torphins (School House)	J. W. Williams, Esq. . . .	5	1	6	410	656	25·82	..
Lumphanan	Cecil H. Roberts, Esq. C.E.	5	1	0	490	700	27·55	..
D Drumoak (Drum Castle)	A. F. Irvine, Esq.	5	0	8	320	661	26·01	164
D Logie Coldstone School	J. B. Anderson, Esq. . . .	5	1	0	608	693	27·27	188
D Logie Coldstone (Loanhead)	Mr. A. Farquharson	5	1	0	743	641	25·22	192
D Aberdeen (Mannofield Res.)	Cecil H. Roberts, Esq. C.E.	5	1	0	171	736	28·97	213
D Aberdeen (Cranford House)	Mr. W. C. Smith	5	1	0	120	793	31·22	196
D Aberdeen (Cornhill Road)	J. B. Innes, Esq.	5	1	0	150	810	31·91	190
2.—DON. 512 sq. mi.								
Aberdeen (King's College)	Meteorological Office . . .	11	2	0	44	747	29·38	198
D Aberdeen (King's College)	Meteorological Office . . .	8	1	0	43	738	29·03	194
D Cockbridge (Delnadamp)	Cecil H. Roberts, Esq. C.E.	5	1	0	1850	982	38·67	201
Strathdon (Estates Office)	C. Christie, Esq.	5	1	2	990	750	29·54	161
D Dyce (Parkhill House)	J. E. Crombie, Esq.	8	0	11	170	782	30·80	196
D New Machar (Straloch)	Mrs. Irvine . . . . .	..	4	0	320	812	31·99	211
D Inverurie (Westfield)	James Skinner, Esq.	5	1	0	..	672	26·46	215
3.—YTHAN & C. 285 sq. mi.								
D Ellon (Esslemont House)	Col. J. Wolrige Gordon . .	5	1	8	100	749	29·50	190
D House of Schivas	Earl of Haddo	5	0	9	200	770	30·32	190
D Fyvie Castle	Col. C. R. Burn, M.P. . . .	5	0	6	200	882	34·71	150
4.—UGIE & C. 257 sq. mi.								
Buchanness	Board of Northern Lights	3	3	0	130	615	24·23	157
D Longside	The Air Ministry	8	1	0	223	857	33·76	221
D New Deer Schoolhouse	H. Cowie, Esq.	5	1	0	397	838	32·98	230
D Peterhead (Mains of Buthlaw)	W. Johnston, Esq.	5	1	6	120	782	30·78	190
D Peterhead (Forehill Works)	W. West, Esq., C.E. . . .	5	0	7	133	761	29·97	199
D Brucklay Castle	ADingwallFordyceEq.MP.	8	1	0	300	984	38·74	199
Kinnairdhead	Board of Northern Lights	3	2	6	120	598	23·55	168
5.—DEVERON & C. 248 sq. mi.								
D Drumblade Public School	G. Harper, Esq.	5	1	0	485	868	34·17	223
Huntly (Union Bank)	Alex. Smith, Esq.	5	1	0	405	872	34·35	..

DIVISION XVII.—NORTH EASTERN COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.				Depth of Rain. 1918	Days with '01 in. or more	
		Diam.	Height Above Ground Sea Level					
ABERDEEN—(con.)		in. ft. in. feet				mm. inches		
5.—DEVERON & C—(con.)								
Huntly (Cruchie)	A. Joss, Esq., <i>per</i> S.M.S.	5	1	3	400	877	34·52	.
BANFF. (Area, 630 sq. mi.)								
1.—YTHAN. 1 sq. mi.								
2.—DEVERON & C. 344 sq. mi.								
D Drummuir Castle	T. Gordon Duff, Esq. . .	5	1	0	605	902	35·53	215
D Keith Station	Mr. A. Kennedy	5	1	0	364	955	37·59	150
Buckie (Roughonnie)	No. 2. W. Hendry, Esq.	5	1	4	392	737	29·02	..
Buckie (Roughonnie)	No. 1. W. Hendry, Esq.	5	1	4	334	768	30·24	..
Buckie (West Church Street)	W. Hendry, Esq.	5	1	4	76	739	29·08	..
D Banff (Duff House)	E. J. Spriggs, Esq., M.D.	5	1	0	5	727	28·63	211
Cullen House Gardens	Mr. F. Low.	5	0	11	100	796	31·35	..
3.—SPEY—Right Bank Tributaries. 285 sq. mi.								
D Dufftown (Victoria Terrace)	Miss B. Walker	5	1	0	579	872	34·32	211
D Aberlour Orphanage	J. G. White, Esq.,	5	1	0	350	799	31·47	144
MORAY. (Area, 477 sq. mi.)								
1.—DEVERON & C. 7 sq. mi.								
2.—SPEY—Right Bank Tributaries. 35 sq. mi.								
D Gordon Castle	Mr. C. Webster	5	1	0	107	769	30·28	210
3.—SPEY—Left Bank Tributaries. 133 sq. mi.								
Grantown-on-Spey	W. Duncan, Esq.	5	1	1	700	840	33·05	187
Knockando (Schoolhouse)	Charles Watt, Esq.	5	1	0	600	946	37·24	213
4.—LOSSIE & C. 154 sq. mi.								
D Pluscarden (Westerton House)	C. Rose, Esq., <i>per</i> S.M.S. . . .	..	..	..	240	836	32·93	202
D Lhanbryde (Blackhills House)	T. N. Christie, Esq. <i>per</i> SMS . .	..	..	..	..	695	27·36	210
Elgin (The Manse)	Rev. Dr. R. Macpherson	6	1	3	38	711	27·98	..
D Duffus House	Mr. W. Ogg	5	1	0	55	720	28·35	177
Covesea Skerries	Board of Northern Lights	7	3	6	52	530	20·88	..
5.—FINDHORN & C. 148 sq. mi.								
Darnaway Castle Gardens	Earl of Moray	5	1	3	200	705	27·74	174
D Brodie (Earlsmill House)	Lt. James Fenwick.	5	0	10	140	779	30·68	184
Forres (Knockonnie)	W. Fraser, Esq. <i>per</i> S.M.S.	6	0	10	100	729	28·70	..
Kinloss House	Mrs. Mackessack	5	1	3	23	668	26·29	153
NAIRN. (Area, 163 sq. mi.)								
1.—FINDHORN & C. 102 sq. mi.								
D Ardelach (Glenferness)	Mr. A. McKenzie	8	1	6	750	952	37·49	177
2.—NAIRN & C. 61 sq. mi.								
Cawdor Castle	(R) Mr. D. Chapman	8	4	3	225	828	32·60	148
D Nairn (Achareidh)	H. A. Clarke, Esq.	8	1	0	59	724	28·52	217
Nairn (Delnies)	Meteorological Office . . .	8	1	9	84	706	27·78	232

DIVISION XVIII.—NORTH WESTERN COUNTIES.

INVERNESS. (Area, 4146 sq. mi.)

1.—TAY—Tummel. 28 sq. mi.

2.—SPEY—Right Bank Tributaries. 437 sq. mi.

Nethy Bridge (U.F. Manse)	Rev. A. Sutherland	5	1	0	750	742	29·23	..	
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DIVISION XVIII.—NORTH WESTERN COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain. 1918	Days with ·01 in. or more
		Diam.	Height Above Ground Sea Level			
INVERNESS—(con.)		in. ft. in. feet			mm.	inches
3.—SPEY—Left Bank Tributaries. 257 sq. mi.						
D Cluny Castle.....	Mr. A. Macdonald	5	1	2	900	1106 43·55 231
Kingussie	No. 1. Mrs. de Watteville, <i>per</i> mos ..	5	1	0	840	962 37·85 208
Kingussie	No. 2 Mrs. de Watteville, <i>per</i> mos ..	5	1	0	828	785 30·89 ..
D Alvie Gardens	Mr. J. G. Fraser	5	1	3	800	884 34·81 232
Alvie Manse	Rev. Dugald Maclean ..	5	1	0	760	848 33·37 ..
D Aviemore (Rothiemurchus) ...	W. Dempster, Esq., <i>per</i> SMS ..	5	1	0	706	801 31·53 216
Carrbridge Manse	Rev. A. Doag, <i>per</i> S.M.S. ..	5	0	11	850	771 30·36 ..
D Muckerach Lodge [Grantown] .	Mr. J. Fraser	5	1	3	760	744 29·30 210
4.—FINDHORN. 164 sq. mi.						
5.—NAIRN & C. 131 sq. mi.						
6.—NESS—Right Bank Tributaries 252 sq. mi.						
Fort Augustus (St. Benedict's) .	Rv. C. von Dieckhoff <i>per</i> SMS. ..	5	1	0	68	1186 46·70 ..
Loch Ness (Killin, Whitebridge)	British Aluminium Co Ltd. ..	8	1	0	1200	1388 54·64 ..
D Loch Ness (Garthbeg)	British Aluminium Co Ltd. ..	8	1	0	645	1140 44·88 220
Loch Ness (Foyers)	British Aluminium Co Ltd. ..	8	1	0	52	1029 40·51 206
Loch Ness (Aberchalder)	British Aluminium Co Ltd. ..	8	1	0	700	944 37·15 ..
7.—NESS—Garry & c. 185 sq. mi.						
M Loch Quoich (Loan)	Col. D. W. Cameron ...	5	1	0	650	4876 191·97 ..
D Loch Quoich (Kinlochquoich) .	Col. D. W. Cameron ...	5	1	0	560	3706 145·92 218
Loch Quoich (Glenquoich)	T MacKenzie, Esq. <i>per</i> SMS ..	5	1	2	569	3138 123·53 ..
Invergarry Gardens	Mr. G. Robertson	5	1	0	130	1848 72·76 ..
8.—NESS—Moriston. 120 sq. mi.						
9.—NESS—Enrick. 131 sq. mi.						
D Drumnadrochit	Mr. Angus Grant	5	1	0	138	998 39·28 227
D Inverness (District Asylum) ...	Dr. T. C. Mackenzie, <i>per</i> SMS ..	..	..	..	..	862 33·95 229
Inverness (High School)	W. G. MacConnachie <i>per</i> SMS ..	5	1	0	98	732 28·79 196
10.—BEAULY. 341 sq. mi.						
11.—CROMARTY FIRTH. 13 sq. mi.						
12.—SOUND OF SLEAT. 259 sq. mi.						
D Loch Nevis (Inverie Gardens) .	Mr. J. Huggins	5	0	6	15	2458 96·78 265
D Glenelg Manse	Rev. A. Mactaggart	5	1	0	85	1656 65·20 247
13.—SOUND OF ARISAIG. 128 sq. mi.						
D Moidart (Kinlochmoidart)	J. C. Stewart, Esq.	5	1	3	13	1975 77·77 251
D Moidart (Roshven)	Mrs. Blackburn	5	1	0	40	2086 82·11 271
M Loch Ailort (Inverailort)	Mrs. Cameron-Head	5	1	6	6	2423 95·38 ..
Arisaig (Point of Rhue)	Miss C. McVarish	5	1	0	100	1562 61·50 ..
D Arisaig (Faire-na-Sguir)	Miss C. C. Astley	5	1	0	130	1687 66·42 259
D Arisaig House	Mr. W. Grant	5	1	0	30	1799 70·82 236
14.—LOCH LINNHE—Right Bank Tributaries. 48 sq. mi.						
Loch Eil (Achdalen)	Col. D. W. Cameron ...	5	1	0	50	1808 71·16 ..
15.—LOCHY—Right Bank Tributaries. 143 sq. mi.						
D Loch Arkaig (Achnacarry)	Col. D. W. Cameron ...	5	1	0	120	2298 90·47 249
D Loch Arkaig (Glen Dessary) ...	Col. D. W. Cameron ...	5	1	0	300	3246 127·79 236
Clunes	Col. D. W. Cameron, <i>per</i> SMS ..	5	1	0	128	1770 69·70 ..
16.—LOCHY—Left Bank Tributaries. 362 sq. mi.						
Loch Lochy (Invergloy)	Maj. G. I. Bailey	5	1	0	202	1551 61·06 222
Loch Laggan (Ardverikie)	C. S. Meik, Esq., C.E. . . .	..	..	..	..	1120 44·11 ..
17.—LOCH LINNHE—Left Bank Tributaries. 120 sq. mi.						
D North Ballachulish (Alltshellach)	B. Chinnery-Haldane Esq. ..	5	2	1	80	2136 84·10 256
D Glenleven (Blackwater Dam, N) 7	British Aluminium Co Ltd. ..	8	1	0	1072	2195 86·42 269

DIVISION XVIII.—NORTH WESTERN COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.				Depth of Rain. 1918	Days with ·01 in. or more		
		Diam.	Height Above Ground Sea Level						
INVERNESS—(con.)		in.	ft.	in.	feet	mm.	inches		
17.—LOCH LINNHE—Left Bank Tributaries—(con.)									
D Glenleven (Kinlochmore Gdns.)	Brian Bibby, Esq.	5	1	0	115	2590	101·97	254	
Glenleven (Invercam)	No. 6 British Aluminium Co. Ltd.	8	1	0	1070	1921	75·63	..	
Glenleven (Chiaron Ho.)	No. 3. British Aluminium Co. Ltd.	8	1	0	1200	2312	91·04	..	
Glenleven (Loch Eilde Mòr)	British Aluminium Co. Ltd.	8	1	1	1130	2269	89·34	..	
Glenleven (Loch Eilde Beg)	British Aluminium Co. Ltd.	8	1	1	1125	2117	83·34	..	
Glenleven (Cam Bridge)	No. 5. British Aluminium Co. Ltd.	8	1	0	1260	1917	75·48	..	
D Fort William (Atholl Bank)	W. T. Kilgour, Esq.	5	1	0	171	1999	78·71	248	
18.—INSULAR, INNER HEBRIDES. 786 sq. mi.									
Hyskier	Board of Northern Lights	..	..	..	..	1145	45·09	239
Skye (Oronsay)	Board of Northern Lights	..	0	6	58	1474	58·03	203	
D Skye (Duisdale House)	R. Noël Paton Esq. & S. M. S.	..	..	..	60	2215	87·20	220
Skye (Kyleakin)	Board of Northern Lights	5	4	6	53	1654	65·10	259	
D Skye (Scalpay Island)	Mr. D. Gunn	5	1	0	4	2249	88·53	257	
D Skye (Portree)	D. Dewar, Esq.	5	1	0	65	1641	64·60	270	
D Skye (Dunvegan)	Mrs. Mackenzie	5	3	0	47	2186	86·06	269	
Rona	Board of Northern Lights	3	1	3	212	885	34·83	237	
19.—INSULAR, OUTER HEBRIDES. 243 sq. mi.									
Barra (Barrahead)	Board of Northern Lights	7	3	0	683	820	32·29	220	
Barra (Castle Bay)	Meteorological Office	..	8	1	0	38	797	31·33	256
South Uist (Ushenish)	Board of Northern Lights	3	1	0	178	1098	43·24	270	
North Uist (Monach)	Board of Northern Lights	8	5	6	20	996	39·21	188	
Harris (Island Glass)	Board of Northern Lights	7	4	2	130	1237	48·70	223	
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	677	26·66	196	
4.—CROMARTY FIRTH. 714 sq. mi.									
M Achnashellach (Glenuaig)	W. M. Christy, Esq.	..	5	1	0	1150	3232	127·25	..
D Achnasheen (Ledgowan)	Mr. H. C. R. Macrae	..	5	1	0	500	2088	82·19	248
Achterneed (Glenskiach)	Mr. T. Dalling	..	5	1	6	458	946	37·24	..
Cromarty House	Brig.-Gen. W. C. Ross, C.B.	5	1	0	60	778	30·61	212	
Cromarty	Board of Northern Lights	3	1	0	28	643	25·31	194	
Invergordon (The Ord)	W. G. Paterson, Esq.	..	5	1	1	50	707	27·85	200
D Alness (Ardross Castle)	Mr. W. L. Minty	..	5	1	0	450	1010	39·77	226
5.—DORNOCH FIRTH. 355 sq. mi.									
D Fearn (Lower Pitkerrie)	Miss A. C. Gordon	..	5	1	0	95	614	24·17	149
Tarbatness	Board of Northern Lights	8	4	0	175	632	24·89	..	
D Ardgay (Gledfield House)	William Morrison, Esq.	..	8	1	0	130	978	38·52	220
6.—ENARD BAY. 78 sq. mi.									
Inverpolly Lodge	J. Scott Rae, Esq.	..	5	3	0	29	1237	48·70	..
7.—LOCH BROOM & C. 367 sq. mi.									
8.—LOCH EWE, LOCH TORRIDON & C. 423 sq. mi.									
D Loch Torridon (Bendamph)	The Earl of Lovelace	..	5	0	5	20	2465	97·04	249
D Poolewe (Inverewe Gardens)	Mr. R. B. Campbell	..	5	0	6	20	1653	65·08	217
Rudh Ré Lighthouse	Board of Northern Lights	..	..	..	..	1196	47·07	250
9.—LOCH CARRON, LOCH ALSH & C. 401 sq. mi.									
M Glen Shiel (Shiel House)	Mr. Colin Campbell	..	5	2064	81·26	..
D Loch Carron (Plockton)	Mrs. Anstruther Mackay	..	5	1	0	4	1641	64·61	252

DIVISION XVIII.—NORTH WESTERN COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.				Depth of Rain. 1918	Days with ·01 in. or more	
		Diam.	Height Above Ground Sea Level					
ROSS & CROMARTY—(con.)		in. ft. in. feet				mm. inches		
9.—LOCH CARRON, LOCH ALSH & C.—(con.)								
D	Loch Carron (Dunhulladale) .. Mrs. Campbell .. .. .	..	..	..	..	2160	85·04	283
	Applecross Gardens Mr. D. McCowan	5	1	0	70	1808	71·18	..
D	Glencarron Lodge Mr. D. D. Munro	5	1	0	504	2025	79·74	265
M	Glencarron Lodge Mr. D. D. Munro	5	1	0	504	2153	84·75	..
10.—INSULAR, OUTER HEBRIDES. 691 sq. mi.								
	Stornoway Meteorological Office ..	8	1	0	52	1423	56·01	280
	Stornoway (Butt of Lewis) Board of Northern Lights	8	4	6	170	867	34·14	..

DIVISION XIX.—NORTHERN COUNTIES.

SUTHERLAND. (Area, 2080 sq. mi.)

1.—DORNOCH FIRTH. 413 sq. mi.									
2.—FLEET, BRORA & C. 309 sq. mi.									
D Dornoch (St. Gilbert's)	G. J. Campbell, Esq.	5	1	0	35	..	742	29·21	181
D Golspie (Technical School)	E. W. Read, Esq.	6	1	9	105	..	838	33·00	182
D Dunrobin Castle	Mr. D. Melville	5	1	6	14	..	888	34·96	156
M Dunrobin Castle	Mr. D. Melville	5	1	0	14	..	876	34·49	..
3.—HELMSDALE & C. 226 sq. mi.									
4.—NORTH COAST STREAMS. 736 sq. mi.									
D Tongue Manse	Rev. David Lundie	5	1	0	180	..	1057	41·63	244
D Bettyhill (Farr Schoolhouse)	Mr. Evander Mackay	5	1	0	100	..	998	39·31	243
D Melvich Schoolhouse	Mr. A. MacIntosh	5	1	0	..	..	953	37·51	169
Cape Wrath	Board of Northern Lights	7	4	8	400	..	1363	53·66	271
5.—LOCH LAXFORD & C. 256 sq. mi.									
D Loch More (Achfary)	Mr. J. Munro	5	1	0	167	..	1977	77·82	259
6.—ENARD BAY. 138 sq. mi.									
7.—INSULAR. 2 sq. mi.									

CAITHNESS. (Area, 696 sq. mi.)

1.—BERRIEDALE, DUNBEATH & C. 169 sq. mi.									
D Berriedale (Langwell Gardens)	Mr. J. Murray	5	1	6	150	..	962	37·87	194
Clythness	Board of Northern Lights	..	..	..	..	..	776	30·57	154
2.—WICK & C. 184 sq. mi.									
Wick	Meteorological Office	8	1	9	81	..	817	32·18	243
Nosshead	Board of Northern Lights	7	4	7	175	..	680	26·76	..
3.—THURSO & C. 238 sq. mi.									
D Thurso (Buckies)	J. H. M. Davidson, Esq.	5	0	11	240	..	1133	44·60	240
Castletown (WestGreenlandFm)	P. Finlayson, Esq.	5	1	0	150	..	1110	43·69	..
Thurso (Holburn Head)	Board of Northern Lights	3	0	8	75	..	702	27·64	155
Dunnet Head	Board of Northern Lights	3	1	0	246	..	850	33·46	..
4.—FORSS & C. 104 sq. mi.									
D Reay (The Manse)	Rev. Dugald Carmichael	8	1	0	49	..	968	38·10	226
5. INSULAR. 1 sq. mi.									
Stroma	Board of Northern Lights	..	..	..	104	..	519	20·45	..
Pentland Skerries	Board of Northern Lights	7	3	9	170	..	881	34·67	163

ORKNEY. (Area, 389 sq. mi.)

Hoy (Cantickhead)	Board of Northern Lights	3	1	0	115	..	811	31·92	150
Hoy (Graemsay Sound, High)	Board of Northern Lights	5	0	4	115	..	856	33·70	175

DIVISION XIX.—NORTHERN COUNTIES—(*continued*).

STATIONS.	AUTHORITIES.	Rain Gauge.				Depth of Rain. 1918	Days with ·01 in. or more		
		Diam.	Height Above Ground Sea Level						
ORKNEY—(<i>con.</i>)		<i>in.</i>	<i>ft.</i>	<i>in.</i>	<i>feet</i>	<i>mm.</i>	<i>inches</i>		
	Hoy (Graemsay Sound, Low)	Board of Northern Lights	8	4	3	55	979	38·53	228
	Copinsay	Board of Northern Lights	..	..	..	..	642	25·28	..
D	Pomona (Houton Bay)	The Air Ministry	8	1	0	498	972	38·28	248
	Pomona (Deerness)	Magnus Spence Esq. <i>pr</i> SMS	5	4	0	161	1026	40·38	216
D	Pomona (Kirkwall)	A. G. Spence, Esq.	5	0	6	72	1112	43·78	237
	Hellyar Holm	Board of Northern Lights	3	1	0	60	888	34·97	..
	Shapinsay (Balfour Castle)	Mr. W. Liddell	5	0	6	50	885	34·85	..
	Auskerry	Board of Northern Lights	3	2	6	10	649	25·54	166
	Sanday (Start Point)	Board of Northern Lights	3	1	0	80	900	35·43	151
	Westray (Noup Head)	Board of Northern Lights	3	1	0	260	752	29·62	172
	North Ronaldshay	Board of Northern Lights	3	0	4	140	843	33·20	156
SHETLAND. (Area, 558 sq. mi.)									
	Fair Isle, South	Board of Northern Lights	..	..	..	..	460	18·11?	170
	Fair Isle, North	Board of Northern Lights	..	..	..	262	578	22·76	179
	Sumburgh Head	Board of Northern Lights	..	..	..	..	724	28·51	..
	Bressay	Board of Northern Lights	3	1	0	105	707	27·82	158
D	Fetlar (The Manse)	Rev. J. A. Campbell . . .	5	1	0	30	756	29·75	222
	Unst (Balta Sound, Halligarth)	Dr. T. E. Saxby, <i>pr</i> M.O.S.	5	1	0	31	973	38·32	283

IRELAND.

DIVISION XX.—MUNSTER.

STATIONS.	AUTHORITIES.	Rain Gauge.				Depth of Rain 1918	Days with ·01 in. or more
		Diam.	Height Above Ground SeaLevel				
CORK. (Area, 2873 sq. mi.)		in. ft. in. feet				mm. inches	
1.—SHANNON—Left Bank Tributaries. 79 sq. mi.							
2.—DINGLE BAY. 4 sq. mi.							
3.—KENMARE & C. 47 sq. mi.							
4.—BANTRY BAY. 197 sq. mi.							
D Garinish Island	Mr. V. Gammon	5	1	3	60	1967	77·45 227
5.—DUNMANUS BAY. 57 sq. mi.							
6.—BANDON & C. 694 sq. mi.							
D Castletownshend (Glenbarrabane)	Sir E. B. Coghill, Bart...	5	5	3	100	952	37·47 184
D Castletownshend (Seafield)	Major H. Chavasse	5	0	8	40	1236	48·65 220
D Skibbereen (Hollybrook)	Col. A. H. Morgan D.S.O.	8	1	2	60	1407	55·38 218
D Caheragh (The Rectory)	Rev. A. W. Whitley	5	0	11	98	1573	61·94 230
D Clonakilty (Shannon Vale Ho.)	T. J. Bennett, Esq.	5	1	3	135	1204	47·40 225
D Ballineen (Kilmeen Rectory)	F. W. Dobbin, Esq., M.D.	5	1	6	350	1518	59·78 230
D Dunmanway (The Rectory)	Rev. Canon A. Wilson	5	1	6	205	1764	69·47 237
D Dunmanway (Carbery)	Dr. W. H. Fitzmaurice	5	1	6	204	1824	71·80 239
D Enniskean (Kilcoleman)	Miss E. Longfield	5	2	6	180	1365	53·75 189
D Bandon (Ardnacarrig)	G. A. Armstrong, Esq.	5	1	0	126	1284	50·56 191
D Innishannon (Downdaniel)	E. W. M. Murphy, Esq.	..	..	..	..	1254	49·36 222
7.—CORK HARBOUR. 726 sq. mi.							
Roches Point	Meteorological Office	8	1	9	32	1054	41·50 271
D Midleton (Ballinacurra)	J. H. Bennett, Esq.	8	1	0	24	1014	39·90 206
D Cork (Corn Market)	D. J. O'Mahony, Esq.	5	1	0	19	1177	46·35 212
D Cork (University College)	H. N. Walsh, Esq.	8	1	0	65	1205	47·44 219
D Cork (University College)	(R) H. N. Walsh, Esq.	6	2	0	66	1152	45·34 218
D Cork (Wellington Road)	R. C. Sikes, Esq., C.E.	5	2	6	120	1085	42·73 184
D Queenstown (Fota Island)	Mr. E. Beckett	5	1	6	35	1155	45·49 211
D Glanmire (Lota Lodge) No. 1.	A.F. Sharman Crawford Esq	5	1	0	200	1186	46·70 223
D Glanmire (Lota Lodge) No. 2.	A.F. Sharman Crawford Esq	5	1	0	100	1132	44·58 220
8.—WOMANAGH & C. 118 sq. mi.							
D Shanagarry (Kinoith)	Miss L. P. Strangman	5	1	0	75	935	36·81 ..
9.—BLACKWATER. 922 sq. mi.							
D Mallow (Summer Hill)	J. F. Williamson, Esq.	5	1	10	261	1205	47·44 234
D Mallow (Longueville)	R. E. Longfield, Esq.	5	1	1	310	1148	45·18 237
D Ballyhooley	H. Beddington, Esq.	5	0	9	..	1248	49·13 179
D Kanturk (Castlecarr)	Mrs. Norton Barry	..	..	..	..	1092	42·99 256
D Mitchelstown Castle	W. D. Webber, Esq.	8	3	6	340	1116	43·93 228

DIVISION XX.—MUNSTER—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.				Depth of Rain. 1918	Days with. ·01 in. or more	
		Diam.	Height Above Ground Sea Level					
		in.	ft.	in.	feet	mm.	inches	
CORK—(con.)								
10.—SUIR. 3 sq. mi.								
11.—INSULAR. 26 sq. mi.								
D Bere Island (Lawrence Cove) ..	Lieut. H. Coleman	....	5	0	7 80	1433	56·41	229
KERRY. (Area 1851 sq. mi.)								
1.—SHANNON—Left Bank Tributaries. 372 sq. mi.								
2.—TRALEE BAY & C. 221 sq. mi.								
3.—DINGLE BAY. 789 sq. mi.								
Cahiriveen (Valencia Observ't'y)	Meteorological Office	..	11	2	8 30	1521	59·89	255
D Cahiriveen (Valencia Observ't'y)	Meteorological Office	...	8	1	0 30	1606	63·25	239
M Gap of Dunloe (Gearahameen) ..	British Rainfall Org.	....	8	3	0 75	2852	112·30	..
D Killarney (Flesk Mills)	D. E. McDonnell, Esq., C.E.	8	2	6 95	1705	67·12	226	
D Killarney (District Asylum) ..	E. W. Griffin, Esq., M.D.	5	0	10 178	1582	62·30	260	
4.—KENMARE & C. 428 sq. mi.								
D Darrynane Abbey	late D. O'Connell, Esq.	..	5	1	1 13	1455	57·30	266
D Kenmare (Derreen)	Mr. W. H. Arrowsmith	..	5	1	0 74	2129	83·82	247
Kenmare (Sheen Falls)	Earl of Kerry	....	5	0	5 25	1945	76·56	242
Kenmare (Dunkerron Castle) ..	Miss L. Palmer	....	5	1	6 70	1604	63·13	248
Kenmare (Dromquinna)	R. P. Colomb, Esq.	....	5	1	0 70	1796	70·71	197
D Kenmare (Dromore)	Major E. Hood	....	5	1	2 90	1882	74·09	238
5.—BLACKWATER. 30 sq. mi.								
6.—INSULAR. 13 sq. mi.								
Valencia (Glanleam)	Meteorological Office	..	8	1	0 75	1674	65·90	244
WATERFORD. (Area, 715 sq. mi.)								
1.—BLACKWATER. 243 sq. mi.								
D Lismore Castle	Duke of Devonshire	....	5	2	9 115	1174	46·22	178
Cappoquin House	Sir J. Keane, Bart.	....	..	2	6 ..	1106	43·54	..
2.—COLLIGAN & C. 259 sq. mi.								
D Tramore (Midvale)	E. B. Jacob, Esq.	....	5	1	0 115	979	38·54	188
D Tramore (Midvale)	E. B. Jacob, Esq.	....	11	6	0 120	908	35·75	188
3.—SUIR. 213 sq. mi.								
D Knockaderry	No. 1. J. J. Fleming, Esq., C.E.	5	7	7 247	1126	44·32	169	
D Knockaderry	No. 2. J. J. Fleming, Esq., C.E.	5	7	7 247	1153	45·39	169	
D Waterford (Brook Lodge)	C. P. Bolton, Esq., C.E.	..	5	1	0 104	1102	43·39	201
D Waterford (Tycor Waterworks)	J. J. Fleming, Esq., C.E.	5	0	7 171	1134	44·64	171	
Waterford (Grange House)	G. D. Croker, Esq.	....	5	1	0 200	1055	41·54	199
Waterford (De La Salle Coll.) ..	Prof. M. J. Healy <i>per</i> MO.	8	1	0 20	1118	44·01	199	
D Waterford	late Edgar White, Esq.	...	5	2	0 120	1146	45·13	205
D Portlaw (Mayfield)	J. Anderson, Esq.	....	5	3	0 70	1208	47·56	207
Portlaw (Curraghmore Gdns.) ..	Mr. D. Crombie	....	5	1	0 95	1190	46·84	190
D Seskin [Carrick-on-Suir]	J. Ernest Grubb, Esq.	8	1	4 542	1299	51·14	231	
TIPPERARY. (Area, 1660 sq. mi.)								
1.—SHANNON—Left Bank Tributaries. 582 sq. mi.								
D Ballina [Killaloe]	Office of Public Works	..	5	2	0 127	1420	55·91	227
D Nenagh (Traverston)	Miss A. H. Norris	....	5	1	0 330	1363	53·66	256
D Nenagh (Kilboy)	The Lady Dunalley	...	8	2	0 326	1335	52·55	221
D Nenagh (Castle Lough)	S. Parker-Hutchinson Esq.	5	1	3 120	1278	50·31	221	
2.—BLACKWATER. 21 sq. mi.								

DIVISION XX.—MUNSTER—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain.		Days with ·01 in or more	
		Diam.	Height Above Ground	Sea Level	1918			
TIPPERARY—(con.)		in.	ft.	in.	feet	mm.	inches	
3.—SUIR. 965 sq. mi.								
D Clonmel (Bruce Villa)	J. H. Grubb, Esq.	8	1	3	110	1027	40·45	214
D Cahir (Suirvale)	George Palmer, Esq. C.E.	5	1	0	200	973	38·31	219
D Cahir (Bengurragh)	R. W. Smith, Esq., jun.	5	1	0	199	1107	43·57	214
Cahir (Abbey)	Mrs. W. Rochfort	5	1	0	160	1064	41·90	217
D Fethard (Coolmore)	E. W. M. Murphy, Esq.	5	1	0	347	1046	41·17	218
D Cashel (Ballinamona)	E. W. M. Murphy, Esq.	5	1	0	257	1003	39·48	233
Ardmayle	L. H. Grubb, Esq.	5	1	6	260	979	38·54	...
4.—BARROW—Nore. 92 sq. mi.								
D Roscrea (Timoney Park)	S. Parker-Hutchinson, Esq.	5	1	0	475	1038	40·88	214
LIMERICK. (Area, 1040 sq. mi.)								
1.—SHANNON—Right Bank Tributaries. 7 sq. mi.								
2.—SHANNON—Left Bank Tributaries. 944 sq. mi.								
D Knocklong (Kilfrush)	F. J. B. Gubbins, Esq.	5	0	9	314	1027	40·44	241
Glin (Shannon Lawn)	C. V. Hickie, Esq.	4	1	0	12	1290	50·77	..
Foynes (Coolnanes)	Lord Monteaale, <i>per</i> M.O.	5	1	0	50	1186	46·70	239
D Foynes (National School)	W. Purtill, Esq.	5	2	0	5	1155	45·46	222
Limerick (Mungret College)	Rev. R. W. Gallagher, <i>pr</i> M.O.	5	1	0	49	1041	40·98	206
Templemungret	John Horan, Es., C.E.	5	1	0	36	1256	49·45	244
Limerick (O'Connell Street)	R. Davison, Esq.	5	1	9	52	1162	45·75	..
Limerick (Strand)	W. J. C. Horne, Esq.	5	1	0	50	1151	45·30	237
D Glenstal Castle	Mr. J. McBean	8	1	0	400	1304	51·35	213
D Castleconnell Rectory	Mrs. Davis	5	1	0	88	1292	50·88	216
Abbeyfeale (Springmount)	J. F. O'Kelly, Esq.	8	1	0	357	1132	44·55	191
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.								
Inagh (Mount Callan)	E. W. M. Murphy, Esq.	5	1	0	479	1858	73·14	258
D Ennistymon House	H. V. Macnamara, Esq.	5	1	0	37	1390	54·73	237
3.—SHANNON—Right Bank Tributaries. 854 sq. mi.								
D Carrigaholt Castle	W. C. V. Burton, Esq.	5	1	0	16	1240	48·80	252
Derravoher [Limerick]	Sir A. W. Shaw	5	1	0	40	1058	41·66	224
D Killadysert (Paradise Hill)	Mrs. F. B. Henn	5	0	11	125	1304	51·36	210
D Newmarket-on-Fergus (Carrigoran)	Mr. A. Barker	5	1	0	86	1210	47·63	216
D Broadford (Hurdlestown)	Colonel W. A. Bentley	5	1	0	167	1280	50·39	246
D Mountshannon (Woodpark)	R. F. Hibbert, Esq.	5	1	0	170	1266	49·86	230
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	1159	45·62	181
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DIVISION XXI.—LEINSTER—(continued).

STATIONS.	AUTHORITIES.	Diam.	Rain Gauge.		Depth of Rain. 1918	Days with ·01 in. or more
			Height Above Ground	SeaLevel		
WEXFORD—(con.)						
			<i>in.</i>	<i>ft. in.</i>	<i>feet</i>	<i>mm. inches</i>
3.—SLANEY & C. 467 sq. mi.						
D Templeudigan (Ballindoney Ho.)	Janssen Budgen, Esq.	5	1	0	434	1224 48·20 209
D Enniscorthy (Ballyhyland)	C. B. Moffat, Esq.	5	1	0	365	1220 48·01 226
D Enniscorthy (Summerville)	W. Waring, Esq.	5	6	0	106	972 38·28 202
Enniscorthy (Monksgrange)	Goddard H. Orpen, Esq.	5	1	0	565	1370 53·95 202
Enniscorthy (Woodbrook)	E. C. Blacker, Esq.	5	1	0	370	1406 55·37 198
4.—OWENAVORRAGH & C. 146 sq. mi.						
D Oulart (Wells)	C. M. Doyne, Esq.	5	1	0	220	1139 44·83 226
D Gorey (Courtown House)	Earl of Courtown	5	3	0	60	1069 42·07 199
5.—OVOCA & 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	1078 42·44 223
2.—BARROW—Nore. 527 sq. mi.						
Inistioge (Woodstock, Mt. Alto)	Mrs. Tighe	8	1	0	860	995 39·18 ..
D Inistioge (Woodstock Gardens)	Mrs. Tighe	5	1	0	400	956 37·65 189
Kilkenny Castle	Mr. E. Sutton, <i>per</i> M.O.	8	1	6	212	915 36·01 233
Kilkenny (Lavistown House)	Miss F. E. Butler	5	2	5	170	858 33·77 182
D Castlecomer House	RHPrior-Wandesforde Esq	5	1	0	392	1080 42·50 217
3.—BARROW. 109 sq. mi.						
D Goresbridge (Barraghcore House)	H. de M. Fleming, Esq.	5	1	0	130	934 36·77 215
WICKLOW. (Area, 781 sq. mi.)						
1.—BARROW. 12 sq. mi.						
2.—SLANEY. 200 sq. mi.						
D Shillelagh (Coollattin Gardens)	Duncan Brough Esq.,	5	0	7	383	1166 45·91 197
3.—OVOCA & C. 241 sq. mi.						
Rathdrum (Avondale)	A. C. Forbes, Esq.	5	0	6	414	1167 45·93 ..
4.—VARTRY & C. 193 sq. mi.						
D Wicklow (Wentworth House)	E. N. Wynne, Esq., C.E.	5	1	1	23	916 36·06 203
D Rathnew (Clonmannon)	Rev. W. H. A. Truell	5	1	6	27	856 33·71 192
D Roundwood (Vartry Filters)	M.A. Moynihan, Esq., C.E.	8	1	8	630	1122 44·19 205
D Roundwood (Vartry Lodge)	M.A. Moynihan, Esq., C.E.	5	1	6	720	1138 44·81 213
D Roundwood	M.A. Moynihan, Esq., C.E.	5	1	6	800	1142 44·95 214
D Roundwood (Knockatemple)	M.A. Moynihan, Esq., C.E.	5	1	6	760	1092 43·00 223
Newcastle (Killadreenan)	Sir J. W. Moore, M.D.	8	1	2	270	924 36·39 194
Tithewer	M.A. Moynihan, Esq., C.E.	5	1	6	1000	1062 41·83 ..
Annacarter Schoolhouse	M.A. Moynihan, Esq., C.E.	5	1	6	750	1116 43·93 ..
Greystones (Auburn)	Sir J. W. Moore, M.D.	5	1	4	30	758 29·86 191
D Greystones	Miss L. Armstrong	5	0	6	150	894 35·20 190
5.—LIFFEY & C. 135 sq. mi.						
CARLOW. (Area, 346 sq. mi.)						
1.—BARROW—Nore. 9 sq. mi.						
2.—BARROW. 216 sq. mi.						
Bagnalstown (Fenagh House)	D. R. P. Beresford, Esq.	5	1	0	340	956 37·62 160
M Bagnalstown (Fenagh House)	D. R. P. Beresford, Esq.	5	1	0	340	919 36·17 ..
Carlow (Browne's Hill)	Col. Browne Clayton	5	1	0	291	973 38·30 ..
3.—SLANEY. 121 sq. mi.						
D Hacketstown Rectory	Rev. C. S. S. Ellison	5	1	2	600	1078 42·44 232

DIVISION XXI.—LEINSTER—(*continued*).

STATIONS.	AUTHORITIES.	Diam.	Rain Gauge.		Depth of Rain. 1918	Days with ·01 in. or more
			Height Above Ground	Sea Level		
QUEEN'S COUNTY. (Area, 664 sq. mi.)						
1.—SHANNON—Left Bank Tributaries. 25 sq. mi.					mm.	inches
2.—BARROW—Nore. 339 sq. mi.						
D Abbey Leix (Blandsfort)	H. Bland, Esq.	5	2	6	532	991 39·01 216
Mountrath (Donore)	W. G. Despard, Esq.	5	1	9	234	961 37·83 197
D Mountrath (Baunreagh)	A. C. Forbes, Esq.	5	1	0	810	1561 61·46 231
3.—BARROW. 300 sq. mi.						
Sunnyside [Carlow]	E. Shackleton, Esq.	5	1	0	178	901 35·47 162
Mountmellick	W. A. Robinson Esq. <i>per</i> MO	5	1	0	252	1090 42·91 200
KING'S COUNTY. (Area, 772 sq. mi.)						
1.—SHANNON—Left Bank Tributaries. 560 sq. mi.						
Birr Castle	Earl of Rosse, <i>per</i> M.O.	8	1	0	175	886 34·89 223
D Birr Castle (Moneyguyneen)	Miss N. B. Biddulph.	5	1	6	400	921 36·25 219
D Victoria Lock [Mcelick]	Office of Public Works	5	2	0	124	818 32·22 206
D Tullamore (Rathrobin)	Lt. Col. M. W. Biddulph.	5	1	0	400	910 36·19 215
D Tullamore (St. Catherine's Rect.)	Rev. R. S. Craig	5	1	6	201	852 33·54 221
Tullamore (Union Workhouse)	Dr. G. A. Moorhead	5	1	0	225	1059 41·68 276
D Ferbane (Turraun Peat Works) A	Leinster Carbonizing Co.	8	1	2	170	864 34·03 214
D Ferbane (Turraun Peat Works) B	Leinster Carbonizing Co.	8	1	2	170	864 34·03 214
D Ballycumber (Moorock Lodge)	H. P. Mulock, Esq.	5	1	0	228	900 35·44 190
2.—BARROW—Nore. 5 sq. mi.						
3.—BARROW. 156 sq. mi.						
4.—BOYNE. 51 sq. mi.						
KILDARE. (Area, 654 sq. mi.)						
1.—BARROW. 332 sq. mi.						
D Castledermot (Millbrook)	T. Westland Greene, Esq.	8	1	4	225	813 32·02 198
D Monasterevan (Moore Abbey)	Mr. C. Pilgrim	5	1	0	236	870 34·59 220
2.—LIFFEY. 246 sq. mi.						
Sallins (Palmerstown)	The Countess of Mayo	5	1	0	321	843 33·19 211
D Straffan House	Mr. F. Streeter	12	2	0	256	856 33·70 199
D Clongowes Wood College	Rev. C. J. Power, S. J.	8	1	0	246	828 32·59 211
3.—BOYNE. 76 sq. mi.						
DUBLIN. (Area, 354 sq. mi.)						
1.—VARTRY & C. 23 sq. mi.						
Carrickmines (Claremont)	John Read, Esq.	5	0	11	300	770 30·33 ..
D Ballybrack (Marino)	Rt. Hon. L. A. Waldron	5	3	6	..	618 24·34 159
2.—LIFFEY & C. 188 sq. mi.						
D Glen-na-Smoel (Rathmines W.W.)	W. R. Stephens, Esq., C.E.	5	1	0	510	1053 41·47 236
D Ballyboden (Rathmines W.W.)	W. R. Stephens, Esq., C.E.	5	1	0	344	863 33·97 213
D Glenageary (Inver)	J. C. Larminie, Esq.	5	1	4	80	688 27·07 162
D Stillorgan (Farmleigh)	T. Jackson, Esq.	5	1	2	220	883 34·75 227
D Stillorgan (Tipperstown)	T. D. Lochtie, Esq.	5	1	4	278	696 27·39 154
D Blackrock (Charleville)	J. Harold Pim, Esq.	5	1	0	260	736 28·97 170
D Kingstown (Harbour Yard)	Office of Public Works	8	1	0	44	682 26·84 166
D Belgard Castle	Capt. A. F. Maude	5	1	0	400	731 28·78 197
Rathmines (Terenure)	F. P. Dixon, Esq., C.E.	5	0	6	125	630 24·79 190
D Rathmines (Harold's Cross)	E. H. Cannon, Esq.	5	0	11	155	612 24·09 198
D Rathmines (Ormond Road)	W. R. Stephens, Esq., C.E.	5	1	0	99	654 25·75 215
D Rathmines (Dartrey Road)	T. Mason, Esq.	5	6	0	100	676 26·63 169

DIVISION XXI.—LEINSTER—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.		Depth of Rain. 1918	Days with 0.1 in. or more
		Diam.	Height Above Ground Sea Level		
DUBLIN—(con.)		in.	ft in. feet	mm.	inches
2.—LIFFEY & C—(con.)					
D Ranelagh (Sandford Lodge)	H. Fayle, Esq.	5	0 11 61	617	24.31 190
Donnybrook (Belmont Avenue)	Douglas Waring Esq.	5	0 9 100	662	26.05 176
D Donnybrook (Anglesea Road)	F. C. D. Joynt, Esq.	5	1 0 30	604	23.77 179
Clondalkin (Cheeverstown)	Sir J. W. Moore, M.D.	5	1 4 350	678	26.71 201
D Dublin (Fitz William Square)	Sir J. W. Moore, M.D.	8	1 6 54	681	26.80 202
Dublin (Trinity College)	C. M. Connolly, Esq.	8	1 0 13	635	25.00 185
D Dublin (Phoenix Park)	Ordnance Survey Office	8	1 0 155	746	29.37 207
D Dublin (Ringsand Pumpg. Stn.)	Vincent Crosby, Esq.	10	1 1 25	604	23.79 187
D Clontarf (Pumping Station)	E. FitzGerald, Esq.	5	4 9 22	576	22.69 189
D Glasnevin (Roy. Botanic Gdns.)	Sir F. W. Moore	8	1 0 55	711	27.99 226
D Howth Castle	J. G. St. Lawrence, Esq.	5	1 9 35	716	28.17 195
3.—NANNY, DELVIN & C. 142 sq. mi.					
D Malahide (Seamount)	J. G. Jameson, Esq.	5	1 0 150	720	28.34 181
Malahide (The Green)	T. Bateman, Esq.	5	1 7 25	761	29.96 178
D Skerries (Milverton Hall)	Capt. E. G. Woods	5	1 6 190	725	28.53 195
D Balbriggan (Ardgillan) No. 1.	Capt. E. R. Taylor	5	1 0 211	790	31.12 200
Balbriggan (Ardgillan) No. 3.	Capt. E. R. Taylor	5	1 0 211	788	31.04 ..
4.—INSULAR. 1 sq. mi.					
D Lambay Island	Hon. Cecil Baring	5	1 0 20	671	26.43 166
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	862	33.93 205
3.—NANNY, DELVIN & C. 150 sq. mi.					
D Mullacroghan [Drogheda]	W. Brydon Hill, Esq.	5	1 6 300	841	33.11 198
4.—BOYNE. 560 sq. mi.					
D Summerhill House	Lord Langford	5	1 0 372	924	36.37 194
D Athboy (Mitchelston)	W. J. Hopkins, Esq.	5	1 0 260	954	37.56 207
Athboy (Frankville)	C. P. Coghill, Esq.	8	1 3 227	1012	39.85 206
D Navan (Staffordstown)	R. J. Butler, Esq.	5	1 0 250	881	34.70 206
D Kells (Headfort)	The Marquis of Headfort	8	0 6 227	1035	40.74 218
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	740	29.12 215
D Athlone (Twyford)	J. P. Hodson, Esq.	5	5 0 188	1045	41.14 223
D Moate (Coolatore)	H. A. S. Upton, Esq.	5	1 6 369	969	38.16 230
D Mullingar (Belvedere)	Mr. J. Bayliss	5	1 0 367	987	38.85 193
D Mullingar (Ballynegall Gardens)	Mr. C. G. Elson	5	2 0 500	1053	41.46 235
D Rathowen (Cromlyn)	(R) Maj-Gen. J. P. Battersby	8	1 6 250	967	38.06 226
D Castlepollard (Gillardstown Ho.)	W. Hardy, Esq.	5	1 0 290	946	37.23 188
D Castlepollard (Pakenham Hall)	Mr. W. Allan	5	1 6 300	1041	40.98 212
2.—BOYNE. 195 sq. mi.					
LOUTH. (Area, 316 sq. mi.)					
1.—BOYNE. 32 sq. mi.					
2.—DUNDALK BAY & C. 264 sq. mi.					
D Dundalk (Town Hall)	M. Sellars, Esq., C.E.	8	55 0 82	776	30.56 203

DIVISION XXI.—LEINSTER—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.				Depth of Rain. 1918	Days with 0.1 in. or more	
		Diam.	Height Above Ground Sea Level					
LOUTH—(con.)		in.	ft.	in.	feet	mm.	inches	
2.—DUNDALK BAY & C—(con.)								
D Dundalk (Mount Pleasant)	....Telford Macneill, Esq.	5	1	0	60	88.2	34.71	219
D Dundalk (Aughneska Res.)	..M. Sellars, Esq., C.E.	5	1	3	207	100.7	39.66	208
Dundalk (Ballymacallet)	....M. Sellars, Esq., C.E.	5	3	6	375	93.5	36.80	..
3.—CARLINGFORD LOUGH. 20 sq. mi.								
D Greenore	.....T. Chambers, Esq., C.E.	5	1	0	20	80.2	31.59	206
LONGFORD. (Area, 424 sq. mi.)								
1.—ERNE. 61 sq. mi.								
2.—SHANNON—Left Bank Tributaries. 363 sq. mi.								
D Ballymahon (New Castle)	.....late Col. King-Harman..	5	2	5	250	101.1	39.80	217
Longford (The Rectory)	.....Rev. H. Justice	5	1	0	185	97.8	38.51	213
D Cloondraha	.....Office of Public Works	5	2	0	130	71.4	28.10	223
D Castle Forbes Gardens	.....The Earl of Granard....	8	1	0	168	96.5	38.00	220

DIVISION XXII.—CONNAUGHT.

GALWAY. (Area, 2377 sq. mi.)								
1.—ERIFF & C. 141 sq. mi.								
2.—GALWAY BAY, NORTH. 277 sq. mi.								
3.—CORRIB. 846 sq. mi.								
D Ballynahinch Castle	R. Berridge, Esq.	5	1	9	41	167.7	66.04	271
D Headfort (Ower House)	Lt.-Col. C. Beddington	5	1	0	59	130.7	51.45	228
D Tuam (Gardenfield)	R. J. Kirwan, Esq.	5	1	0	155	119.7	47.14	..
4.—GALWAY BAY, SOUTH. 281 sq. mi.								
D Woodlawn	Mr. C. Farmer	5	3	6	300	97.4	38.35	201
5.—SHANNON—Right Bank Tributaries. 803 sq. mi.								
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	90.0	35.45	186
D Albert Lock [Jamestown]	Office of Public Works	5	2	0	146	72.5	28.54	191
MAYO. (Area, 2149 sq. mi.)								
1.—SLIGO BAY. 10 sq. mi.								
2.—MOY & C. 797 sq. mi.								
D Crossmolina (Enniscoe)	J. Pratt, Esq.	5	0	11	74	152.2	59.92	257
3.—BLACKSOD BAY & C. 411 sq. mi.								
D Blacksod Point	Meteorological Office	8	0	10	327	123.9	48.78	259
4.—CLEW BAY. 254 sq. mi.								
D Westport House	The Marquis of Sligo	5	1	0	35	131.3	51.68	245
D Westport (St. Helen's)	Miss Kelly	6	0	11	35	106.3	41.86	276
D Newport (Burrishoole House)	H.M. Anketell Jones, Esq. . . .	5	1	10	30	143.0	56.28	263
5.—ERIFF & C. 121 sq. mi.								
D Aasleagh House	The Marquis of Sligo	5	1	0	30	257.8	101.49	250
D Delphi Lodge	The Marquis of Sligo	5	1	0	110	285.3	112.33	264

DIVISION XXII.—CONNAUGHT—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.				Depth of Rain.		Days with ·01 in. or more
		Diam.	Height Above Ground SeaLevel			1918		
		in.	ft.	in.	feet	mm.	inches	
MAYO—(con.)								
6.—CORRIB. 432 sq. mi.								
D Ballycurrin [Headfort]	.....Lt.-Col. C. Beddington	5	1	0	..	1244	48·98	222
D Cong (The Glebe)	.....Rev. Canon R. Y. Lynn	5	1	11	112	1408	55·42	239
Ballimobe (Cranmore)	.....H. H. C. Knox, Esq.	5	1	0	99	1392	54·81	..
7.—SHANNON—Right Bank Tributaries. 35 sq. mi.								
8.—INSULAR. 89 sq. mi.								
D Dugort (Slievemore Hotel)	...Mrs. J. R. Sheridan	5	1	0	50	1568	61·72	243
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	127	1259	49·57	253
Collooney (Markree Obsy)	....J. R. Armstrong, Esq.	5	16	6	138	1211	47·66	253
D Sligo (Ord-na-veagh)	.....R. J. Kirwan, Esq.	5	1	0	90	1140	44·87	244
3.—MOY & C. 166 sq. mi.								
4.—SHANNON—Right Bank Tributaries. 56 sq. mi.								
5.—INSULAR. 1 sq. mi.								
LEITRIM. (Area, 615 sq. mi.)								
1.—ERNE. 152 sq. mi.								
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. 198 sq. mi.								
D Ruskey	.....Office of Public Works	5	2	0	141	779	30·68	227
D Drumshanbo (Lough Allen Sluice)	Office of Public Works	5	2	0	169	816	32·14	174

DIVISION XXIII.—ULSTER.

CAVAN. (Area, 753 sq. mi.)								
1.—ERNE. 489 sq. mi.								
D Killeshandra (Castle Hamilton)	Major W. J. Hamilton	5	1	0	251	951	37·45	191
D Killeshandra (Drom Mullac)	Miss Prudence M. Lough	5	1	0	280	1058	41·64	195
D Belturbet (Cloverhill)	Mrs. Sanderson	5	1	0	202	934	36·76	222
2.—SHANNON—Right Bank Tributaries. 34 sq. mi.								
3.—SHANNON—Left Bank Tributaries. 91 sq. mi.								
4.—BOYNE. 122 sq. mi.								
Bailieborough	Rev. D. O'Reilly	5	1	6	511	1062	41·83	193
5.—DUNDALK BAY. 17 sq. mi.								
FERMANAGH. (Area, 713 sq. mi.)								
1.—ERNE. 667 sq. mi.								
D Enniskillen (Florence Court)	F. Crowley, Esq.	5	1	5	169	1369	53·91	264
Enniskillen (Portora)	W. N. Tetley, Esq.	5	1	0	251	1065	41·92	..
Belleek (Heronshaw)	J. Beacom, Esq.	5	1	5	150	1236	48·68	224
2.—DROWES & C. 46 sq. mi.								
MONAGHAN. (Area, 498 sq. mi.)								
1.—ERNE. 208 sq. mi.								
D Dartrey [Cootehill]	The Earl of Dartrey	5	2	6	265	1070	42·12	221

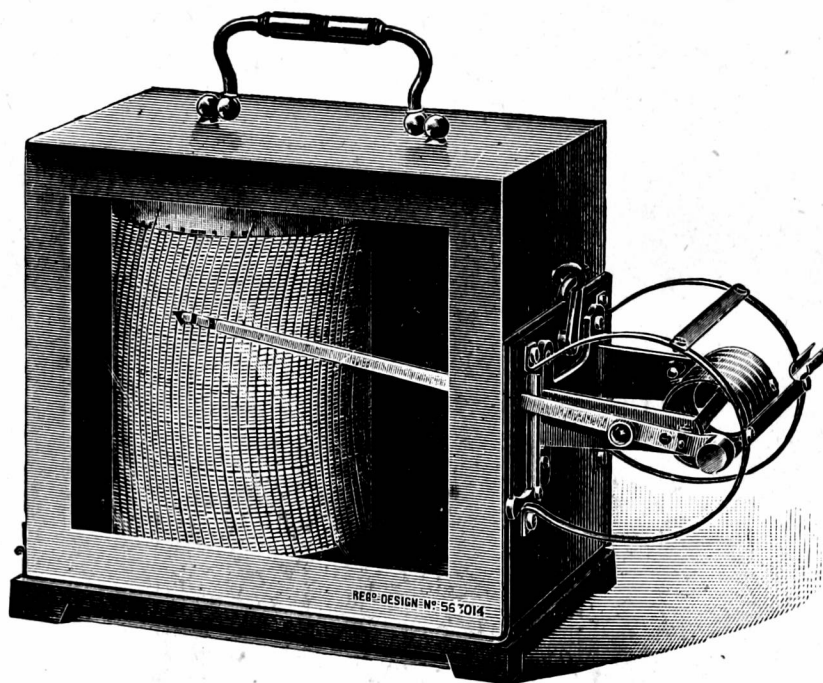
DIVISION XXIII.—ULSTER—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.				Depth of Rain.		Days with. 0.1 in. or more
		Diam.	Height Above		Ground Sea Level	1918		
MONAGHAN—(con.)		in. ft. in. eet				mm.	inches	
2.—DUNDALK BAY. 132 sq. mi.								
3.—BANN—Lough Neagh, West. 158 sq. mi.								
D Monaghan (Workhouse)	.....Dr. J. Campbell Hall ...	5	5	6	240	791	31.14	188
ARMAGH. (Area, 514 sq. mi.)								
1.—DUNDALK BAY. 118 sq. mi.								
2.—CARLINGFORD LOUGH. 23 sq. mi.								
3.—BANN—Lough Neagh, East. 37 sq. mi.								
D Lurgan (Belle Vue)	.....S. A. Bell, Esq.	5	0	5	200	830	32.68	205
4.—BANN, UPPER. 144 sq. mi.								
D Tanderagee.....	Dr. J. Taylor	5	1	6	198	891	35.07	210
Tanderagee.....	(R) Dr. J. Taylor	8	1	6	198	881	34.67	..
5.—BANN—Lough Neagh, West. 192 sq. mi.								
D Armagh Observatory	Meteorological Office ..	8	1	0	210	902	35.52	224
Loughgall (Manor House)	Mrs. Sowter	5	1	0	210	789	31.08	218
DOWN. (Area, 961 sq. mi.)								
1.—CARLINGFORD LOUGH. 104 sq. mi.								
D Warrenpoint (Clonallon)	Lt.-Col. A. W. Mansergh	5	1	3	15	983	38.69	203
Newry (Bridge Street Ho.)	C. Blaney, Esq.	5	1	0	23	1032	40.63	..
2.—DUNDRUM BAY & C. 173 sq. mi.								
D Mourne Mount's (Fofanny Res.)	J. H. H. Swiney, Esq. C.E	5	1	0	938	1785	70.26	203
D Seaforde	Major W. G. Forde	8	0	5	180	1088	42.82	215
3.—STRANGFORD LOUGH. 260 sq. mi.								
D Newtownards (Scrabo Hill) ..	Newtownards U.D.C. ...	..	1	6	540	920	36.21	188
4.—COAST STREAMS. 47 sq. mi.								
Donaghadee (Orlock Head) ...	Meteorological Office ..	8	1	6	101	869	34.13	235
5.—BELFAST LOUGH. 206 sq. mi.								
6.—BANN—Lough Neagh, East. 7 sq. mi.								
7.—BANN, UPPER. 162 sq. mi.								
Rathfryland (Muddock Bridge)	Mr. W. Henning	5	3	0	300	788	31.02	..
Banbridge (Observatory)	Mr. H. D. Fleming	5	1	6	210	788	31.04	234
D Banbridge (Milltown)	J. E. Kennedy, Esq.	5	1	0	200	799	31.46	234
Banbridge (Millbank)	Mrs. J. W. Mulligan	5	1	0	257	807	31.76	210
Moyallon House [Portadown]	Mr. J. Lynas	5	0	5	130	791	31.13	209
8.—INSULAR. 2 sq. mi.								
ANTRIM. (Area, 1193 sq. mi.)								
1.—BELFAST LOUGH. 107 sq. mi.								
D Lisburn (Ulster Provincial Sch.)	J. Ridges, Esq.	5	1	6	208	1384	54.47	223
D Belfast (Queen's University) ..	Mr. G. Robinson	5	1	0	62	905	37.99	217
D Belfast (Cave Hill Road)	Miss C. Firth	5	1	0	200	1134	44.64	242
D Belfast (Sewage Outfall Wks) (R)	H. A. Cutler, Esq.	8	2	11	26	934	36.77	210
Belfast (Oldpark Filters)	F.W. McCullough, Esq. C.E.	5	3	6	203	1119	44.07	218
Carrickfergus (Dorisland)	F.W. McCullough, Esq. C.E.	5	3	0	250	945	37.21	219
Carrickfergus (South Woodburn)	F.W. McCullough, Esq. C.E.	5	3	0	640	1080	42.53	228
Carrickfergus (North Woodburn)	F.W. McCullough, Esq. C.E.	5	3	0	735	1142	44.96	230
Carrickfergus (Copeland)	F.W. McCullough, Esq. C.E.	5	3	0	424	942	37.10	229
Carrickfergus (Lough Mourne)	F.W. McCullough, Esq. C.E.	5	3	0	596	1103	43.43	231

DIVISION XXIII.—ULSTER—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.		Depth of Rain. 1918	Days with ·01 in. or more			
		Diam.	Height Above Ground Sea Level					
ANTRIM—(con.)		in.	ft. in.	feet	mm.	inches		
2.—GLENARM & C. 186 sq. mi.								
D Larne (Sallagh Springs)	J. H. H. Swiney, Esq., C.E.	5	1	0	566	1299	51·15	203
D Glenarm Castle	late Earl of Antrim	5	1	0	70	1112	43·80	201
3.—BUSH & C. 193 sq. mi.								
4.—BANN, LOWER. 112 sq. mi.								
5.—BANN—Lough Neagh, East. 590 sq. mi.								
Stonyford (Belfast W.W.)	F. W. McCullough, Esq., C.E.	5	1	6	437	938	36·95	210
Antrim (Ardnaveigh)	H. B. Murray, Esq.	5	1	6	210	802	31·59	212
D Ballymena (Harryville)	J. R. Williams, Esq.	5	1	5	150	1210	47·63	247
D Broughshane (Quolie)	H. O'Hara, Esq., C.E.	5	1	4	864	1228	48·33	251
6.—INSULAR. 5 sq. mi.								
LONDONDERRY. (Area, 816 sq. mi.)								
1.—LOUGH SWILLY. 6 sq. mi.								
D Londonderry (Dunruadh)	J. H. Welch, Esq.	5	0	6	130	1098	43·25	257
2.—BUSH & C. 9 sq. mi.								
3.—BANN, LOWER. 240 sq. mi.								
D Garvagh (Woodbank House)	Lt.-Cl. R. C. S. Macausland	5	1	0	350	1291	50·84	252
4.—BANN—Lough Neagh, West. 196 sq. mi.								
5.—FOYLE & C. 365 sq. mi.								
D Glenedra Lodge	M. A. Robinson, Esq., CE.	5	1	0	950	1625	63·98	249
D Londonderry (Creggan Res.)	Mr. W. Hutchison	8	1	0	320	1185	46·65	276
Limavady (Drenagh)	M. M. McCausland, Esq.	5	1	6	80	998	39·31	239
Bellarena	Sir F. G. Heygate, Bart.	5	1	3	7	998	39·28	..
TYRONE. (Area, 1257 sq. mi.)								
1.—ERNE. 46 sq. mi.								
2.—BANN—Lough Neagh, West. 442 sq. mi.								
Dungannon (Killyman Rectory)	Rev. E. F. Campbell	5	0	11	150	1002	39·46	..
3.—FOYLE. 769 sq. mi.								
D Omagh (Edenfel)	Lt.-Col. J. B. Buchanan	8	1	0	280	1110	43·69	239
D Newtown Stewart (Baron's Court)	Mr. R. Bell	5	1	0	250	1113	43·81	244
D Sion Mills (Sion House)	Miss G. T. Herdman	5	3	0	100	1143	44·99	248
DONEGAL. (Area, 1875 sq. mi.)								
1.—DONAGH & C. 146 sq. mi.								
Malin Head	Meteorological Office	8	1	0	208	813	32·01	241
2.—LOUGH SWILLY. 273 sq. mi.								
D Letterkenny (District Asylum)	E. E. Moore, Esq.	5	1	0	183	1200	47·25	262
3.—SHEEPHAVEN & C. 307 sq. mi.								
D Milford (The Manse)	Rev. W. J. Young	5	1	6	150	1140	44·90	256
4.—GWEEBARRA & C. 341 sq. mi.								
5.—DONEGAL BAY. 322 sq. mi.								
D Killybegs (Rockmount)	Com. G. G. Philipps, R.N.	5	1	0	65	1634	64·35	241
6.—ERNE. 68 sq. mi.								
7.—DROWES & C. 10 sq. mi.								
8.—FOYLE. 396 sq. mi.								
9.—INSULAR. 12 sq. mi.								

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