

C. a.

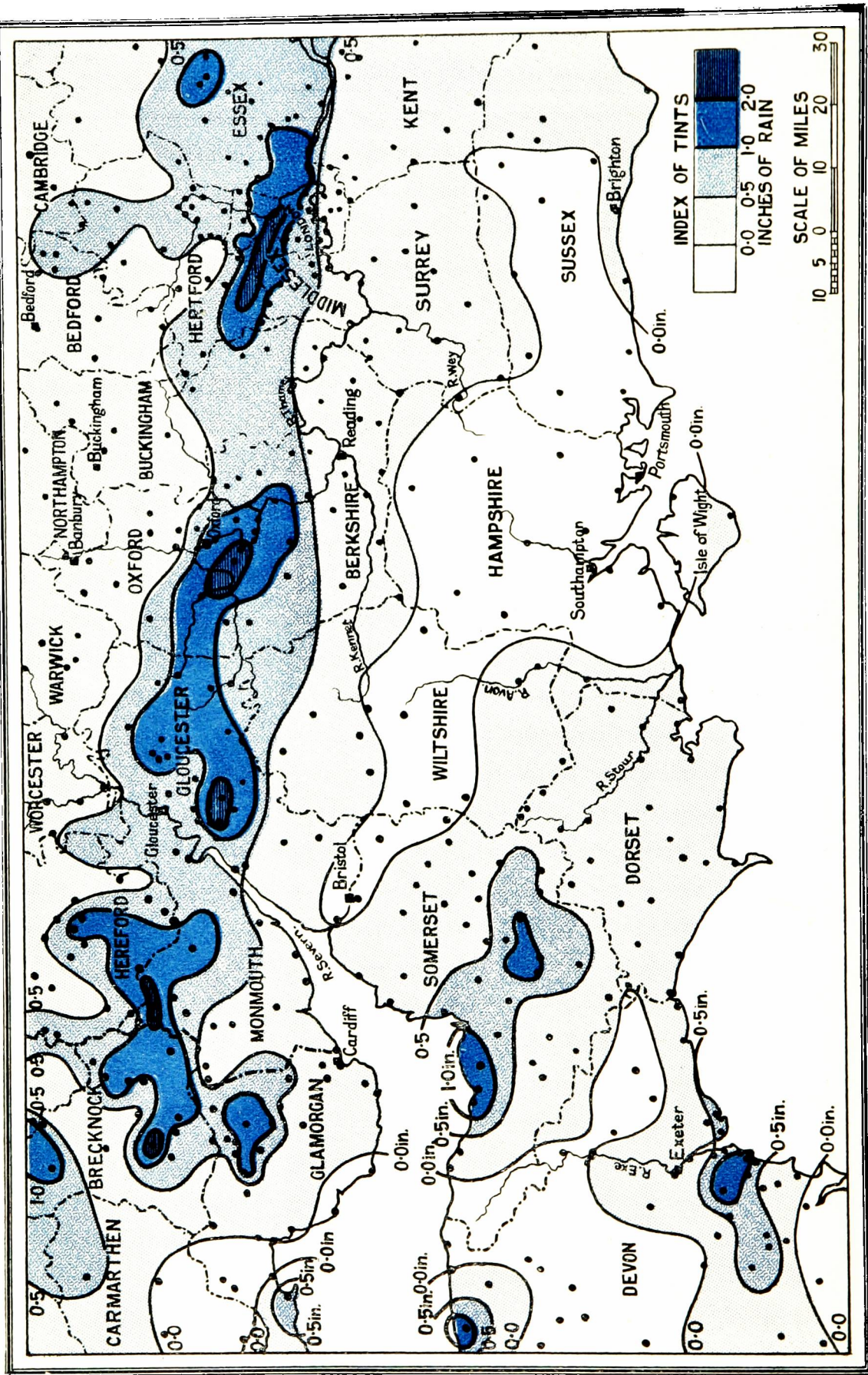
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BRITISH RAINFALL,  
1907.









BRITISH RAINFALL, 1907.

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

DURING THE YEAR

1907

AS RECORDED BY MORE THAN 4,000 OBSERVERS  
IN GREAT BRITAIN AND IRELAND  
AND DISCUSSED  
WITH ARTICLES UPON VARIOUS BRANCHES OF RAINFALL WORK

BY

HUGH ROBERT MILL

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THE FORTY-SEVENTH ANNUAL VOLUME

---

WITH MAPS AND ILLUSTRATIONS

LONDON:  
EDWARD STANFORD, 12, 13 & 14, LONG ACRE W.C.  
1908.

# ERRATA IN BRITISH RAINFALL, 1906.

- p. 54, Duration of Rainfall, 1903, *for* 88·5 *read* 688·5.  
 „ Intensity, 1904, *for* ·024 *read* ·042.  
 „ Rain days, total, 1895, *for* *m* 137 *read* 137.  
 „ „ „ 1901, „ 128 *read* *m* 128.  
 p. 80, Last four lines of table *should read*
- |                       |      |     |     |     |     |     |     |     |      |     |     |
|-----------------------|------|-----|-----|-----|-----|-----|-----|-----|------|-----|-----|
| 1906...               | 3153 | ... | 323 | ... | 556 | ... | 227 | ... | 4259 | ... | 163 |
| Difference from 1905— |      |     |     |     |     |     |     |     |      |     |     |
| Increase .....        | 137  | ... | —   | ... | 28  | ... | 3   | ... | 163  | ... | —   |
| Decrease.....         | —    | ... | 5   | ... | —   | ... | —   | ... | —    | ... | —   |
- p. [31], l. 8 *for* TSS on 5 *read* TSS on 3.  
 p. [53], l. 7, *for* SOUTH MIDLAND COUNTIES *read* SOUTH WESTERN COUNTIES  
 p. [85], l. 5 from bottom, *for* September *read* December.  
 p. [188], delete record at Brookland.  
 p. [189]. „ „ Broadstairs.  
 p. [191], l. 8 from bottom. Forest Row (Hindleap Lodge) *for* 31·24 *read* 32·24.  
 p. [197], delete record at St. Albans (County Museum), 28·70, 185.  
 „ Berkhamstead (Fairhill), *for* W. B. Hopkins, Esq., *read* Miss M. Hopkins.  
 p. [212], Rousdon [Lyne Regis], *for* 29·82 *read* 30·82.  
 p. [214], Looe (Morval), *for* 40·24 *read* 43·24.  
 p. [229], Alport Dale (Alport Castles), *for* 52·12 *read* 53·12.  
 [241], Ilkley (Glen Rosa), *for* 33·15 *read* 34·15.  
 p. [244], l. 7 from bottom, *for* „ (Skelton Castle) *read* Saltburn-by-the-Sea (Skelton Castle).  
 p. [251], l. 1, Glynecorrwg, *for* 69·70, 185, *read* 85·57, 217.  
 „ l. 3, from bottom, *for* „ (Llanlear) *read* Lampeter (Llanlear).  
 p. [277], Heading, *for* 1905 *read* 1906.

# ERRATUM IN BRITISH RAINFALL, 1907.

- p. [17], l. 31, *for* ·75 in. *read* 1·10 in.

N.B.—Most of the errata in total amount of rainfall during 1906 arose from the accumulated snowfall of December 25th to 30th, being measured during January, 1907, so that the discrepancies could not be discovered until receipt of the 1907 returns.

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## P R E F A C E .

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WE have completed this volume and sent the last portion of MS. to the printer one week later than last year, and instead of being apologetic for the late date, I am well pleased that it is not later. The cause of the delay is, that in order to attend a meeting of Meteorologists from all parts of the British Empire, called by the Royal Society of Canada, to meet at Quebec on July 22nd, I arranged against my habit, and very reluctantly, to leave London before the publication of this volume, which could not be completed until my return. My passage was taken to sail on July 10th, and all other engagements postponed or cancelled. Many arrangements had to be made for interrupting my work, and these involved other people, so that when a cable arrived on June 27th announcing the postponement of the meeting for a year, it was impossible for me to change my plans ; and as I had to leave London at the date arranged, I for once, though with a disturbed mind, took a holiday with *British Rainfall* unfinished. Thanks to the admirable way in which Mr. Carle Salter and my other assistants carried on the compilation of the Tables and maps, I found on my return that the delay would not be so serious as I had feared, and I trust that the volume will not be found less accurate or thorough than its predecessors.

I have to acknowledge the usual help in proof-reading from Mrs. H. R. Mill.

H. R. M.

62, CAMDEN SQUARE,  
LONDON, N.W.,  
*August 31st, 1908.*



Before a midnight breaks in storm,  
Or herded sea in wrath,  
Ye know what wavering gusts inform  
The greater tempest's path ;  
Till the loosed wind  
Drive all from mind,  
Except Distress, which, so will prophets cry,  
O'ercame them, houseless, from the unhinting sky.

Ere rivers league against the land  
In piracy of flood,  
Ye know what waters slip and stand  
Where seldom water stood,  
Yet who will note,  
Till fields afloat,  
And washen carcass and the returning well,  
Trumpet what these poor heralds strove to tell !

RUDYARD KIPLING.

## REPORT.

---

**Introductory.**—The work of the British Rainfall Organization continues to expand and to exact each year a greater amount of labour in the routine of the office, for not only are the Observers increasing in number with remarkable steadiness, but the methods by which the results are examined and discussed, are gradually becoming more exact and time-consuming. It follows as a necessary consequence that the annual volume can no longer be produced so early in the year as formerly, for it is impossible to increase the staff in proportion to the growth of the work, and this year there is another reason which accounts for the exceptional delay.

**Jubilee of the Camden Square Rain Record.**—The late Mr. G. J. Symons commenced his systematic observations of rainfall at 9 a.m. on January 2nd, 1858, and although for the first few years the gauge was situated a few hundred yards from its present position, the conditions of exposure amply justify its title to have completed its fiftieth year with the reading at 9 a.m. on January 1st, 1908. The occasion is worthy of being recorded as there are few indeed of the rain stations now at work which can boast of half a century's unbroken observations. We should have liked to present a discussion of some aspects of the fifty years' work in this volume, but circumstances have obliged us to postpone it, though the most laborious part of the computations has been completed. I look back with pleasure to the fact that during the last eight years I have been able to take a share in continuing the work and perpetuating the memory of my old friend, whose monument, the British Rainfall Organization, becomes, we hope and believe, more worthy of its founder every year.

**The Present Staff.**—In the house, 62, Camden Square, where Mr. Symons developed the Rainfall Organization, the work now occupies my whole time and that of five assistants. I am fortunate in having as my right hand man Mr. Carle Salter, F.R.Met.Soc., on whom a large share of the compilation of this volume has devolved. His duties include keeping the lists of Observers and stations up

to date, classifying and checking the daily returns, reading proofs, and keeping a general oversight of the routine work. Mr. R. Lamport, who has had many years' experience, takes charge of the monthly returns, of the entering of an abstract of the returns in the permanent record books, and of the testing of rain gauges. Mr. H. E. Carter, who was formerly in the Meteorological Office, and joined the staff in October, 1907, is the statistical assistant, and his time is mainly occupied with checking returns, computations, and the compilation of Tables. Mr. Donald Salter, after acting as a temporary cartographical assistant for some months, is now permanently employed in preparing, and measuring areas upon, the very numerous rainfall maps which are now required, and in drawing for reproduction the illustrations for *British Rainfall* and *Symons's Meteorological Magazine*. Mr. J. H. Ready is a shorthand clerk, who takes down and types the correspondence, copies the letters, and attends to the stationery and postage book. In a small establishment the temporary absence of one individual would stop the work if the others were not able to undertake the duties of the absentee, and so it is necessary for each member of the staff to know something of the work of the others, so that the routine may go on in some way whoever may be laid aside. All take part in the daily meteorological observations at Camden Square.

**Personal.**—My own work is largely composed of correspondence, which is of the most varied kind, largely it consists of drawing isohyetal lines on maps, revising and checking the work of assistants, discussing data and drawing conclusions for memoirs or reports, editing and in great part writing *British Rainfall* and *Symons's Meteorological Magazine*; and largely also of lecturing, writing, or advising on practical matters in order to supplement the financial returns from the sale of publications and subscriptions. The added strain of taking part in the work of other scientific institutions, such as the Royal Meteorological Society, has threatened to be the last straw of the proverb; and on the conclusion of my term of office as President next January, I intend to devote my whole strength to the study of rainfall. For the same reason I have recently resigned from many Committees, which consumed time out of all proportion to the scientific return, and I have very reluctantly given up my position as one of the British representatives to the International Council for the Study of the Sea, for I feel that it is no longer possible to keep pace with the rapidly expanding science

of oceanography without encroaching on the more pressing claims of Rainfall.

**The future of the Rainfall Organization.**—I have given a great deal of anxious thought to the problem of securing the future existence and prosperity of the system of rainfall observations, which has gradually grown to a magnitude so great that I cannot expect another to assume the responsibilities I now bear. One of the solutions suggested is to form a body of Trustees under a deed which shall guarantee the continuation of the work on the old lines, while leaving freedom to develop according to new ideas. I had hoped to be able to make some definite announcement on the subject in this Report, but as yet it is only possible to say that the matter is under consideration.

**The Present Work.**—It is desirable to organize the work in departments independent of each other, and to adopt improved methods of filing and cataloguing the great store of records ; but to do this would involve expenditure far beyond the present income. The Organization can only go on, in default of improvements beyond our means, by eliminating all work which is not absolutely necessary, and arranging the records in such a form as to involve the least possible expenditure of time in dealing with them. The Rules have been framed and the forms devised with this object in view ; and, if each Observer would remember that his return is one of nearly 5,000 (for several hundred records are received each year which for one reason or another cannot be published), he will realize that want of uniformity may give rise to serious delay. It is a matter of continual thankfulness that the Observers do, with the rarest exceptions, co-operate with us most heartily, and so to a large extent discuss their own observations by presenting them in the form prescribed. Still there are hundreds every year who do not date their returns, hundreds who date them wrongly, scores who neglect to sign their names, and dozens who do not enter the name of their observing station on any of their forms. A few insist on pasting Form B on the back of Form A, thereby making it necessary to copy one of them, and many mark their returns with red ink, which we prefer to use only for editorial notes and corrections.

**Annual Rainfall Maps.**—Thanks to the generous support of an Observer whose name I am not at liberty to give, good progress has been made with the plotting of rainfall figures for every year during

which the number of observations make it possible to attempt to draw isohyetal lines with any chance of success. The figures have now been placed on maps for every year from 1868 to date. It will not be practicable to go much further back, as the number of stations at work in early years was not sufficient to give certainty to the lines as drawn on a useful scale. The final adjustment of the isohyetal lines, the measurement of the areas and the calculation of the general rainfall for each year will engage my attention for some time to come, but the result promises to be of great interest and value, for it should ultimately yield a map of average rainfall which may be accepted as a standard with which to compare any year, past or present.

**Lectures on Rainfall.**—Since the last Report was issued I have given a lecture on “Rain” to large audiences, under the auspices of the Gilchrist Educational Trust, at Normanton, Cleckheaton, Great Harwood, Radcliffe and Bury. I was able to see many rainfall Observers and inspect their gauges, and was indebted in particular to Mr. Noble, of Great Harwood, who most kindly devoted a day on his motor-car to enable me to visit rainfall stations. An incidental result of this tour was to ascertain that Townley Hall, near Burnley, had been acquired by that town as a museum. On my informing the Town Clerk of Burnley that the first English record of rainfall had been started at Townley Hall in 1677, he secured the consent of his Corporation to re-establish the rain record at the old place, a circumstance very interesting from the historical associations. We should like to see a similar revival of Gilbert White’s gauge at Selborne. In the early months of 1908 I had the privilege of giving a discourse on “Map Studies of Rainfall,” in the form of a presidential address, to the Royal Meteorological Society; and at the request of the Council of the Royal Geographical Society, delivered a course of six lectures on the “Rainfall of the British Isles,” which was largely attended by teachers and others.

**Symons’s Meteorological Magazine.**—On the 16th of each month, and usually on the 15th when that day is a Saturday, this Magazine, founded by Mr. Symons in 1866, continues punctually to see the light. It contains illustrated articles on all aspects of meteorology, and in particular on the meteorology and climatology of the British Empire, early reports of the meetings of the Meteorological Societies, reviews of all the important meteorological books



published in the world, and of many minor works, and a page of Meteorological News and Notes. But in addition it forms a sort of monthly appendix to *British Rainfall* by publishing rainfall figures for the preceding month at about 170 stations in the British Isles, and a large scale rainfall map for the previous month of the Thames Valley and surrounding counties. All this involves a great deal of time and expense, and many readers of *British Rainfall* do not seem to know of it. A specimen copy will be sent free on application. The annual volume contains about 250 pp.; and the annual subscription is 5/-, post free, sent monthly.

**British Rainfall at the Franco-British Exhibition.**—In connection with the Science Section of this remarkably well-organized and successful Exhibition, an opportunity was afforded to show some results of rainfall researches. A series of modern rain gauges, lent by the leading instrument makers, was arranged on a table under a screen, bearing eight framed rainfall maps of the British Isles, on the scale of 19 miles to 1 inch, showing the distribution of rainfall stations, the average rainfall, rainfall of the wettest and driest years on record, and the rainfall of characteristic months and days. In addition, there were two maps of the rainfall of the Thames valley for individual months, a diagram showing by means of a curve the increase of rainfall observers from 1860 to 1907, and copies of the recording rain gauge traces for the longest and the strongest falls experienced at Camden Square.

**Hour of Observation.**—Each year the increasing attention paid to the discussion of the rainfall of individual days has shown more clearly than before the vast importance of simultaneous observations at a fixed hour. The most convenient hour has been found to be 9 a.m. Greenwich mean solar time, and at this hour an overwhelming majority of the Observers visit their rain gauges. The greater the divergence from this hour the less is the value of the observations for comparative purposes. Formerly the official Meteorological Office Observers read their rain gauges at 8 a.m.; the hour has now been advanced to 7 a.m., and it will be difficult in dealing with the returns of 1908 to utilize these returns in the sections dealing with maximum falls and the distribution of rainfall in time. Should the ingenious trick to surprise the British nation into early rising (for we can call the Daylight Saving Bill nothing else) ever become law, our records will be reduced to such confusion

that the value of our work will certainly be greatly reduced and the labour of it increased to a degree the contemplation of which raises only thoughts of resignation. I see so much promise of interesting results from the discussion of Daily records that I earnestly plead with all observers for a stricter attention to punctual examination of the rain gauge at 9 a.m. every day, wet or dry, and when it is raining in particular.

**Special Services.**—I have to acknowledge the assistance received from the Meteorological Office, the Royal Meteorological Society, the Scottish Meteorological Society, the various local rainfall associations, especially those so ably conducted by Mr. F. Campbell Bayard, Rev. H. A. Boys, Mr. John Hopkinson, Mr. C. A. Markham, Miss Marshall, Mr. A. W. Preston, Mr. H. Stilwell and Mr. T. Wainwright, also to the Cornwall County Council, the Great Central Railway Company, the Commissioners of Northern Lights, the Shannon Navigation, the Water Authorities of all the important towns in the country, and many eminent engineers. And as the tariffs of countries which tax all imports always conclude by a special *ad valorem* duty on unenumerated articles, so I conclude by a special word of thanks to every Observer and helper in proportion to the goodwill with which he or she works.

**Finance.**—I have nothing new to say on this subject, and I am heartily tired of repeating an oft-told tale; but I should be grateful if readers would refer to this section in any or all of the earlier volumes of *British Rainfall*, where all that has been said remains more true than ever. I publish, as usual, a list of subscribers and purchasers of publications whose total payment amounts to £1 or more: when the purchasers of either publication at full price or half-price are added to these the total number falls short of one-third of the total number of Observers. I may mention that I have not yet been able to detect any symptom of the Government being moved by the passive assistance of the Irish friend, who, as mentioned last year, has suspended his usual subscription to the rainfall funds, as a protest against the total want of State aid towards a national work.

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## THE THUNDERSTORMS OF JULY 21st & 22nd, 1907.

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### I.—Map Study.

THE frequency of severe thunderstorms towards the end of July has often attracted attention, and the characteristic patchiness and linear direction of the areas affected by heavy rain in such storms have been referred to on several occasions. These features were well shown in the series of maps of the rain of four successive days of thunderstorms, July 24th, 25th, 26th and 27th, 1904, in *British Rainfall*, 1904, pp. [119]-[127]. The extremely typical examples of such storms which occurred on July 21st and 22nd last offer an opportunity for dealing with the associated distribution of rainfall more fully than is possible in the few lines devoted to the discussion in the section on Heavy Falls on Rainfall Days, and we have accordingly worked them out as fully as time permitted.

The data on which the discussion is based are of three kinds:—

- (1) The daily records of rainfall from 3465 stations from which complete rainfall maps of the British Isles have been drawn for each of the two days.
- (2) Remarks and special reports by Observers, which are published either in the Observers' Notes on the Days pp. [16]-[17], or in the *Met. Mag.* for 1907 (vol. 42, pp. 130-134, 158, 217), or remain in MS. for utilization in this article.
- (3) The official Reports of the Meteorological Office, presenting a general view of the weather and the meteorological conditions.

The daily records were utilized to prepare maps of the rainfall of each day on the scale of 19 miles to an inch. When a few hundred entries had been put on it was possible to draw lines roughly through the places where less than .10 in. of rain fell, and through those where .50, 1.00 and 2.00 in. were experienced. Then a selection was made, many additional entries being inserted in the neighbourhood of the lines, so as to define their direction, but fewer where the readings were of nearly the same value and could not

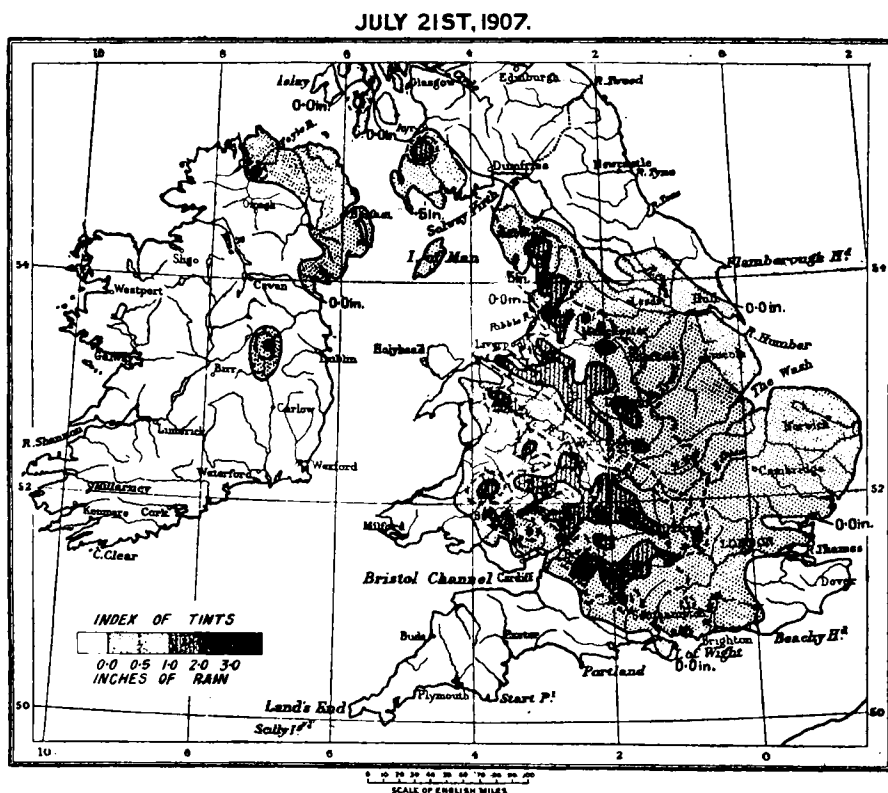
influence the drawing. All the data were looked at and as much utilized as was necessary to give a picture of the actual distribution of rain over the country. The maps are reproduced on a small scale, but the most interesting part of the more remarkable storm is also shown on a larger scale in colour as the frontispiece to the volume. The maps may be trusted as accurate representations of the distribution of the total rain of each day, but we have not got sufficient data to allow us to say that on each day we dealt with a single shower or a single storm, and it is probable that if it were possible to map the showers of a single storm as it moved across the country we should have still simpler and more striking outlines to deal with.

We may as well dispose at first of the least satisfactory part of our work, and confess that we can say but little as to the progress of the storms from point to point. We turned with anticipations of valuable aid to the volume of "Hourly Readings from the self-recording instruments of the four Observatories in connexion with the Meteorological Office," which for the first time in the history of *British Rainfall* has been published in time to be of use to us; but unfortunately the heavy rains of those two days seem to have fitted themselves upon the map so as to avoid touching the observatories in question, which indeed stand sentry at the corners of the country, leaving abundant space for evasion.

From the data before us, on July 21st, a thunderstorm appears to have been experienced first about 1 p.m. in Herefordshire, where it lasted for about three hours. At 3 p.m. it broke at Grange-over-Sands, between 3.45 and 4 p.m. at Market Lavington and Bath, at 5.16 p.m. on Salisbury Plain, and at 5.50 p.m. at Edenderry, in King's County. It is not safe, however, to assume that intermediate points experienced the storm at intermediate hours, or to speculate as to the determining cause of the lightning and rain, whatever it might be, spreading radially from the borders of Wales. At 7.30 p.m. a storm commenced at Hampson-in-Ellel, in Lancashire, where indeed thundery conditions seem to have prevailed all day, and at 9.45 p.m. an exceedingly violent thunderstorm broke over Buxton. At 1.15 a.m. on the 22nd, a thunderstorm of two hours' duration was experienced at Norbury, in Staffordshire, and from 1.30 to 4.30 a.m. it was felt in the neighbourhood of St. Asaph. All these contributed rain to the rainfall day of the 21st, and it would appear that there were at least three distinct periods in which heavy rain fell.

On the 22nd, on the other hand, our scanty data as to hours of commencement show a single storm occurring simultaneously in the most distant places affected. In Herefordshire it raged from 2 to 4 p.m. ; it had commenced in the north of London by 2.50 p.m., and in the west of Ireland by 3.30. The duration of the heaviest rain was between two and three hours, so the storm must have been experienced practically simultaneously at the extreme points from east to west, though data are lacking as to whether it was simultaneous also from south to north.

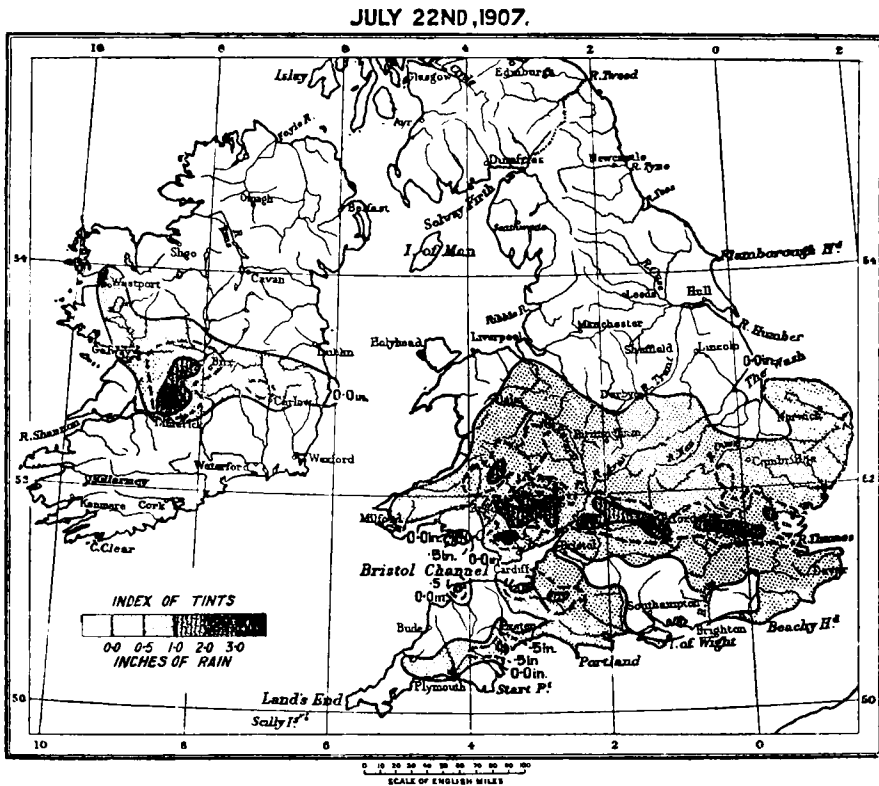
The *Daily* and *Weekly Weather Reports* show that during the period in question the British Isles lay in a *col* of slightly lower pressure, between an anticyclonic area in the North Atlantic and a less marked high pressure area in the western Mediterranean ; but both to the



west and to the east of the British Isles there were extensive shallow depressions, so that the barometric gradients over our islands were slight and irregular, the pressure over one or other of the high or low areas being subject to softening or intensification from hour to hour. On the 22nd, the whole of Europe from the west of Ireland



to Russia was occupied by irregular shallow areas of low pressure, only one of which was deep enough to require two isobars at one-tenth of an inch intervals to express it. The conditions were extremely unsettled, and "some rain and thunderstorms" were predicted. The traces of the recording barograph at Camden Square showed a continuous slight fall, broken on the afternoons of both days by the quick uneasy movements telling of sudden and irregular pressure changes of small range, but considerable intensity, which are characteristic of periods of electrical disturbance in the atmosphere. We do not doubt that if accurate barometric observations were available from every rainfall station, an extremely interesting group of pressure maps could have been constructed, which would show the formation and propagation of pressure systems at least as



complicated as the rainfall splashes, to which we must confine our attention. We may take it, however, that the stations reporting cloud lay within the area of rain, and those that had continuous sunshine lay beyond the isohyets of our maps. The fact is, that at present there is no other meteorological element capable of being

dealt with cartographically over an area of several thousand square miles with anything like the precision which we can claim for the distribution of rainfall. Thus, although in a cyclonic storm, the barometric maps throw light on the distribution of rain, in a period of unsettled conditions, with pressure changes of small range and great frequency, the accurately fixed rainfall distribution is the only thing which can elucidate the details of the atmospheric changes.

The map of July 21st shows that some rain fell during the 24 hours ending at 9 a.m. on the 22nd, along a strip of the north-east of Ireland and on a very small patch in King's County, altogether 3750 square miles. In Great Britain the area with any rain was a continuous stretch of 43,140 square miles, almost entirely in England. The boundary of the area with any rain was on the north-east, a line drawn from Kintyre through Ayr and Keswick and thence through Harrogate to the coast of the East Riding near Hull. On the south-west the boundary ran from Llandudno to Aberystwyth, thence through Lampeter and Cardiff to the Isle of Wight, and then through Brighton and Croydon to the mouth of the Thames; the whole approaching to a square of about 200 miles in the side. Within this square and running parallel to the south-eastern and north-western sides the rain exceeded half an inch in two parallel strips, one of them running for about 130 miles, with a breadth of about 60 miles from Winchester to the middle of Wales; the other nearly parallel and separated by a strip from 10 to 20 miles wide, running for 170 miles from Windsor to the Lake District, with a breadth increasing from about 10 to about 80 miles.

Within each of these areas large patches of more than 1 inch of rain occurred, arranged as a whole, parallel to the length of the wet strips; but curiously cut up and including small patches of more than 2 inches. The small patches of maximum rainfall in the south-western strip, are, on the whole, elongated from east to west, and can be grouped into three parallel chains running east and west, cutting the wet strip obliquely into successive belts of higher and lower rainfall. The southern belt of high rainfall culminates in the three nearly equal and equidistant splashes of more than 2 inches near Hungerford, Devizes and Bath. The middle belt is less regular, consisting of two 2-inch splashes at Bourton-on-the-Water and Gloucester, and two 1-inch splashes continuing the line near Abergavenny and Merthyr. The northern belt is less distinct with two splashes. Viewed from another aspect the centres of maximum

rainfall in both wet strips may be taken as forming bifurcating lines radiating from the 1-inch splash at Marlow just north of Windsor, the lower line running from Windsor to Devizes, and forking to Salisbury and Bristol, the second line running from Windsor to Bourton-on-the-Water and forking to Merthyr, Builth, and Corwen, the third line running from Windsor to Runcorn, and the fourth from Windsor to Lancaster.

We have no proof that the different areas of heavy rainfall were due each to a separate storm originating locally, though in some cases such observations of the time of occurrence as we possess, seem to point towards that opinion being justified. In all probability the apparent radiation of the storm lines from Windsor is accidental. If there is anything of the nature of radial propagation, it would probably be found to have its centre north of Hereford where the thunder-rain was first reported, and proceed north-west to Corwen, west to Builth, south-west to Merthyr, and south-east to Bourton-on-the-Water. If so, the southern group of heavy splashes might be held to radiate from near Devizes, and possibly some similar symmetry might be found in the northern strip also.

Speculation apart, the mapping of the rain of July 21st shows that there is a definitely linear arrangement of the splashes whatever isohyetal line we take as bounding them, and that whether we go with the lines or across the lines there is an alternation approaching to regularity in the recurrence of wet and less wet areas. The heavy rain which fixed the lines of 1 and 2 inches on the map, fell in less than 3 hours at every point; but the lighter rains which filled in the lower lines probably lasted for several hours more.

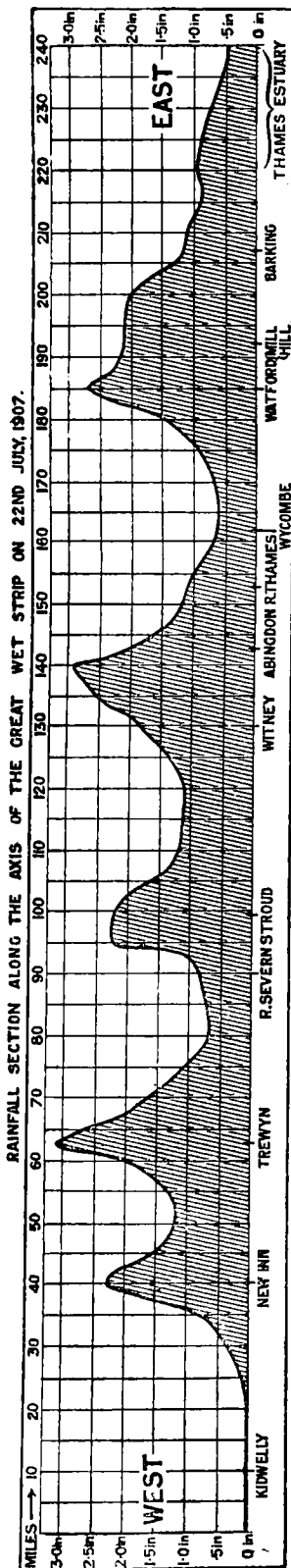
The region in which rain fell during the thunderstorms of July 22nd was nearly the same as that of the 21st, except in Ireland, where a broad band with an area of 6,230 sq. miles crossed the middle of the island from west to east. In England, rain fell only to the south of a line drawn from Chester through Stafford and Ely to Hunstanton; the north-west of Wales was rainless, and there were large areas without rain in South Wales and in the south of England, the outlines of which are sufficiently shown on the map. The whole area on which any rain fell in England and Wales was 31,810 sq. miles. More than half-an-inch fell only in four nearly straight narrow strips, which ran parallel to each other in a direction from a little north of west to a little south of east. The smallest was in Devon, running from Princetown to Teignmouth, a distance of about 25 miles, and

its width was under 10 miles. It contained only one patch with more than an inch of rain. The second strip lay about 40 miles to the north (measuring from centre to centre), a rainless band intervening between the two. It was nearly 50 miles long and about 15 miles wide, and contained two patches with more than an inch of rain near its two extremities: the eastern was near Langport, and in the western as much as 2 inches of rain fell at Watchet. About 30 miles farther west near Ilfracombe, across a rainless area, there was another small wet patch in the same line as the wet strip.

The third and largest strip with rain exceeding half-an-inch lay about 50 miles farther north, and extended for nearly 200 miles from the middle of South Wales to the mouth of the Thames, with a mean breadth of about 30 miles. This strip was separated from that to the south by a strip of rainless country; and, especially in the west, it showed a tendency to split into three nearly parallel tongues. Along the centre of the strip there was a series of long narrow patches with more than an inch of rain, arranged in line and nearly equally spaced, and each contained a central row of narrow splashes of more than 2 inches rainfall. The portion of the map containing these extremely characteristic strips of thunderstorm rain is reproduced in colour on a larger scale, as the frontispiece, and the positions of the stations from which it was drawn are shown by dots, except to the north of London, where the very numerous dots are omitted, as they would have made the isohyetal lines, of 1 and 2 inches, indistinct. It is interesting to notice that while the rain exceeded 2 inches in the northern suburbs of London, it did not amount to half-an-inch at the river Thames, and only .20 in. fell in the southern suburbs.

Throughout the whole extent of the map the amount of rainfall shows a total disregard to the configuration of the land, heavy falls and light falls occurring indifferently over mountains, or valleys, or plains.

In order to draw attention to the wave-like character of the rainfall in the great wet strip, along the whole of which the fall appears to have been practically simultaneous, we have constructed a section to scale, the horizontal line being marked in miles as measured along a slightly wavy central line running lengthwise through all the 2-inch areas and along the axis of the 1-inch area between them. The vertical lines are divided to show the depth of rain in inches. It will be observed that the successive maxima,



counting from west to east, follow at intervals of 23, 35, 42, and 47 miles; and the successive intervening minima at intervals of 29, 39, and 45 miles; showing an average interval of 37 miles between the successive waves of rain, whether we measure from crest to crest or trough to trough. The general uniformity and gradual increase in length of the intervals and the alignment of the wet patches appear too perfect to be accidental. On other occasions, though from less complete maps, the succession of nearly equal and uniformly spaced splashes of heavy rain in a long line, parallel to other similar lines, has been recognised. It appears natural to associate these with the characteristic barograph trace of a thunderstorm which shows that violent pressure changes, revealed to the non-instrumental observer by the sudden squall which breaks the sultry stillness before the deluge of rain or hail, are set up and probably propagated after the manner of a line-squall.

If we could construct an isobaric chart for the afternoons of July 21st and 22nd with the same degree of minuteness as the isohyetal charts which we have just described, we should probably get nearer to the life-history of a thunderstorm than it would be possible to do otherwise. It seems quite likely that the wet patches were the centres of strong uprising currents, the comparatively dry intervals between them being less disturbed; but the cause of the uprisings taking place in line and at practically equal intervals we cannot tell.

If we could fix in advance the arena of such a thunderstorm and the day when it was to appear, it might be possible to arrange for an adequate system of barometric observa-

tions ; but the opportunity comes without warning. Only the steady perseverance in dull routine can reap the reward of being instrumental in revealing so striking an example of order and regularity as the apparently erratic incidence of thunderstorm rain presents. Although we have only a glimmering of the causes at work in producing these effects, the demonstration of the effects themselves can hardly fail to suggest lines of study which may lead to very important results.

A glance at the two maps shows that the storm of the 22nd was in its western two-thirds superimposed upon the area affected by that of the 21st, and, but for the accident that the two fell in separate rainfall days, it would have been impossible to recognise their individuality and similarity. In the light of the 22nd it is permissible to reflect on the possibility of the more complicated isohyetal outlines of the 21st being a result of the separate storms of that date affecting to some extent the same areas, and so producing appearances less easy to analyse.

From the rainfall maps as constructed it is an easy matter, though it takes some time, to measure the area between the various isohyetal lines, and to calculate the general rainfall of each zone. This has to be done in a number of little pieces but on bringing them all together the following table results, the last column obtained by multiplying the area with the general rainfall over it, gives the volume of the total precipitation in the convenient if not very familiar unit of square-mile-inches. One square-mile-inch is equal to about 14,480,000 gallons, or 64,640 tons of water, and as the limits of the area on

	JULY 21st.			JULY 22nd.		
	Area sq. mi.	General R in.	Volume sq. mi. x in.	Area sq. mi.	General R in.	Volume sq. mi. x in.
More than 3 in..	4	3·05	12	14	3·20	45
2—3 inches.....	206	2·20	453	181	2·37	429
1—2 „ .....	4826	1·30	6274	1805	1·29	2328
·5—1 „ .....	11068	·75	8301	6105	·73	4457
Less than ·5 in...	30793	·26	8006	29934	·22	6585
Total Rain .....	46,897		23,046	38,039		13,844
General rainfall over whole area affected, ·49 in.				..... ·36 in.		

which any rain fell are pretty accurately mapped we can speak with confidence as to the whole quantity of water deposited on the British Isles on each of these two days.

From these figures it appears that the area affected by falls of 2 inches or over, and the volume of rain that fell upon them, was the same on both days, but that there was a far greater area with a rainfall between .50 and 1.00 in. on the 21st; the area with less than half an inch was the same on both days. The total volume of rain on the 21st was 333,706 million gallons, on the 22nd 200,461 million gallons, the total for the two days amounting to 534,167 million gallons, a weight of 2,385,000,000 tons, in other words there fell in less than 10 hours, a weight equal to the whole output of British coal in 10 years.

## II.—Effects of the Storms.

From the bewildering mass of material in the form of MS. notes and newspaper cuttings, we gather that the disturbances, both of the 21st and 22nd, were good examples of summer thunderstorms. The press freely acclaimed them as of unprecedented violence, but unfortunately for our belief in that opinion abundant data were adduced to show that the storms, though well-developed specimens of their kind, were no more terrible than many others which it has been our duty to chronicle. The public are very slow to recognize that hail is a summer phenomenon, and that it is far more unusual to encounter a shower of lumps of ice in winter than during a July thunderstorm.

Perhaps the most striking of the local displays on July 21st was that in the north of Ireland where the distribution of rain was much less simple than our map suggests. The *Londonderry Sentinel* gives so good an account of this storm that we quote it at some length, pointing out however that the cyclone referred to was probably of the nature of a whirlwind.

The storm was very erratic in its course, and gave different impressions to different observers. But accounts agree that, while it travelled mostly in circles, Ballykelly and the Faughan districts were cyclonic centres, Londonderry city coming in a good second, both in the matter of big thunder rolls and drenching downpours. Yet, withal, the visitation was partial even in Londonderry, for, while the hailstorm was almost unprecedented in violence in the Strand direction, and exceedingly heavy in exposed places like Beechwood Park and the Demesne and at Waterside, practically no rain fell on Letterkenny Road, nor did any rain fall beyond Coroddy.

The burst was heralded in the storm centres by what one can only describe as a rushing mighty wind. So great was this momentary cyclone—for it lasted only a couple of minutes—that large trees went down before its overpowering force, some to be torn out by the roots, others to rise again when the gale abated. Everywhere that the cyclone went it set up a whirlwind action, snatching up pieces of paper, straw, and chips, and gaily carrying them aloft. After the wind came in places an almost awesome darkness caused by the masses of rain and electricity-charged clouds obscuring the sun.

But for people in general the most alarming element in the storm was the thunder . . . . Its violence can best be judged by the fact that one great discharge disturbed the atmosphere so seriously as to shatter the look-out glass in the cab of a locomotive on the Northern Counties line. Windows were broken in more than one direction.

The lightning was not altogether so vivid as might have been expected, considering the loudness of the thunder. But the flashes were remarkably frequent. When the storm was at its height a ball of fire ran to earth among some trees near the Demesne. Similar manifestations are reported from several districts, but happily so far there is no record of loss of human life, though many hens were killed during the gale . . . . The districts of Magilligan and Ballykelly seem to have experienced the brunt of the storm. At Magilligan the flashes of lightning were immediately followed by the thunder crashes, showing that the storm was directly overhead. At places there were short, but sharp, showers of hail . . . . At Ballykelly a waterspout burst over the hills. The immense quantity of water rushed along to the low-lying lands, carrying sheep and in some cases pigs along with it. Nearing Ballykelly Railway Station so great a force had the water obtained that it actually uprooted and bore along large trees. The high running railway line for a time blocked the water finding a sufficient outlet to the lough. Part of the railway platform forms an arch over the stream which runs from the hills to the lough, but this arch was quickly blocked by the quantity of trees, hay, and soil borne along. The impounded water gradually rose until for miles around the railway station the place resembled a turbulent sea. The stationmaster and his family were compelled to seek safety in the upper storey of the station house.

This is a fair sample of a sheaf of cuttings which is before us from newspapers published in different parts of Wales and the West of England, dealing with the storms of the two days. Colonel Bentley's and Mr. Parker's excellent description of the effects of the storm of the 22nd near Killaloe in Ireland, have already appeared in *Symons's Meteorological Magazine* for August and December, 1907. We now quote three accounts of the effects of the storms in South Wales.

Both storms seem to have been very severe on the back-bone of mountains which runs from west to east through South Wales, culminating in the Carmarthen Vans, the Brecon Beacons and the



Black Mountains between Monmouth and Hereford. In no other part of the country does the force of the rain appear to have been so powerfully concentrated upon small areas, concerning two of which we have had good accounts, one in the Senny valley which runs northward from the Carmarthen Vans to the Usk, the other in the valleys which run southward from the Black Mountains towards the Usk and Wye. Some of the valleys lying directly between those two centres seem to have escaped the brunt of the storm in a surprising way. The Taff Fechan for instance, above Merthyr Tydvil, which is abundantly supplied with rain gauges, did not record so much as an inch either on the 21st or 22nd, and no doubt other places surrounded by wet stations also escaped lightly.

Writing on November 8th, 1907, Mr. J. S. Masterman, who is familiar in no common degree with the remotest parts of the South Wales mountains, says:—

I went up the Senny valley the other day to within a mile of the Senny's source, to see what the Americans call a "wash-out." It is extraordinary what an amount of rocks and trees the infant Senny has uprooted, and flung about the place. They tell me it was the result of a "Cloud-burst," whatever that may be. The flood was about 4 p.m., on Sunday, July 21st. There was a big thunderstorm up there on the 20th and 21st, but the flood that nearly swept away the little farm of Llwyn Llydan, the highest in the glen, only lasted an hour—as a boy who lives there told me. Following up the Senny a mile beyond Llwyn Llydan brings you within a quarter of a mile or so of the source of Gihirych, over the pass called Bwlch y Duwynt. The Gihirych stream is the chief feeder of the new Swansea reservoir. The chief man among the river keepers told me that the cloud-burst tore great rents in the hillside near the source of Gihirych, and the stream carried such a lot of stuff into the new reservoir that Swansea could not drink it. For three weeks the Usk was so foul from the overflow of the reservoir that they could not fish. Then they got the reservoir people to flush the river with the clearer water from the surface of the reservoir (it seems that the regular covenanted supply comes out at a lower level), and so things got right. The Usk, however, above the junction of the Cray and the Senny remained clear all the time. Therefore the cloud-burst must have been concentrated on a very limited area near Bwlch y Duwynt.

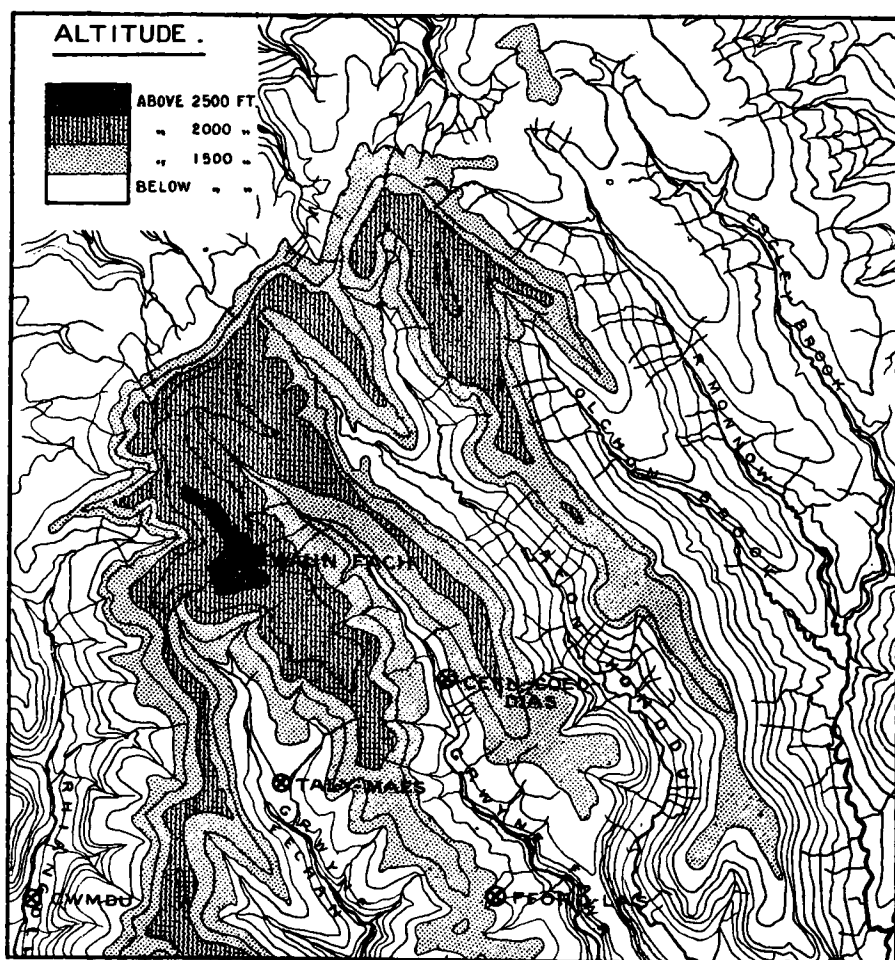
We understand that a rain gauge is maintained at the Swansea reservoir referred to, but it has the rare distinction of being one of the extremely few known rain gauges in the country the records from which are not furnished to us for publication. On this occasion the record would have been of remarkable interest.

Mr. Baker Gabb, of Abergavenny, who has a house also in the Grwyne Fawr valley in the centre of the Black Mountains, shown as

Cefn Coed Dias on the accompanying rough sketch map, sends the following notes on the storm there :—

A terrific storm of rain and hail, travelling from north-east to south-west, in a path about half a mile wide, broke over the Llanthony and Grwyne Fawr valleys, on 22nd July, about 3 p.m. It commenced with a cloud burst on the topmost ridge of the hill which divides the two valleys, above the farm of Neuadd-Elwyd, in the Llanthony valley, and Cadwgan, in the Grwyne Fawr valley, a large mass of water rushing down the hillside into the Llanthony valley, causing landslides and other damage there, whilst on the Grwyne Fawr side, so great was the mass that the road leading along the hillside to Cadwgan Farm was cut through to a depth of 8 feet, and hundreds of tons of debris were washed into the river below.

This cloud burst was followed by terrific hail, which completely devastated several cornfields on Neuadd-Elwyd and other farms, the corn in the fields





**EFFECTS OF THUNDERSTORM OF 22nd JULY, 1907.**



FIG. 1.



FIG. 2.

and the bracken on the hillsides being beaten down as though with a flail, whilst trees were stripped of their foliage, and even the bark in places was torn off. Poultry and game were killed, and the bed of the Honddû river, in the Llanthony valley, was so blocked that the water flooded the adjacent land, and several hundredweight of trout were picked up when the water subsided. The road from Abergavenny to Llanthony Abbey was blocked with hail to a depth of 4 feet, and a party of visitors to the Abbey were unable to return to Abergavenny. Their driver, later in the evening, rode back on one of the horses, wading to the saddle flaps through the thawing ice.

The Rev. R. P. Dansey, of Kentchurch, Herefordshire, whose keen interest in rainfall observing in difficult places led him to establish a rain gauge at Waun Fach, on the very summit of the Black Mountains, and whose frequent visits have familiarized him with all the peculiarities of land-form and weather in that desolate region, has been kind enough to deal with the ravage wrought by the storm in some detail, and we owe to his skill with the camera the fine photographs (Plates I. and II.) which illustrate his description. We have seen similar scars on the hills in the Lake District, which had their origin more than a hundred years ago in a storm such as that now under discussion. Mr. Dansey's view of the part taken by lightning in breaking the ground, which is then washed out by torrential rain is extremely interesting.

#### REV. R. P. DANSEY'S DESCRIPTION.

In South Herefordshire the storm of the 22nd was more severe than that of the 21st; the rain measured at Kentchurch Rectory, 210 ft. above sea level, was 1.77 inches. The Black Mountains divide Hereford from Brecon; they consist of four parallel ridges, each 8 to 12 miles in length. The summit of the most northerly of these ridges forms the boundary between the two counties. It was towards the east end of this ridge, on the slopes of Hatteral Hill (1,743 ft.), that the storm of the 22nd seems to have reached its maximum intensity. I visited the scene a fortnight after the storm. Walking from the little station of Pandy, on the Great Western Railway, along the ridge where the cultivated ground meets the fern-clad slopes of the steep hill side, in about two miles I reached what had seemed from a distance a red scar on the hill. This started at about 900 ft. above sea level. On a very steep hill side, in perfectly dry ground and among ferns standing 3 ft. high, was a hole 10 or 12 yds. across and about 5 ft. deep. The solid rock had been rent asunder. Probably globular lightning had struck the spot

and run all down the hill, followed by an enormous mass of water ; nothing less than a water-spout could have wrought the tremendous havoc that was visible. Figure 1 (Plate I.) shows the head of this track, and another photograph taken from the same place showed its path down to the valley, making it plain how the fern was cut as if with a knife, and tons of debris carried from the head of the track, where the lightning struck, towards the bottom. A hedge alongside a large plantation was washed away, but it had been repaired when the photograph was taken. Several trees in the wood had bark ripped from them by the rocks, but none were uprooted. This "scar" was the smallest of the series, and it was not till I had discovered it and gone about a mile further towards the north-west along the ridge, that to my amazement I found at least seven more similar, but larger, "dug outs" all close together. The largest (Fig. 2) started at a height of about 1,600 ft. on Hatteral Hill. The photograph is taken above the point where presumably the lightning struck ; and although, owing to foreshortening, the track looks almost level, there is a difference of 600 or 700 ft. between the top of the picture and the fence at the bottom. At the fence, which is built on a raised bank, the track turns to the left and appears to have left its marks right down into the valley. The whole of this track—and the others in lesser degree—were covered with boulders and liquid, but now hardening, mud ; although it was two weeks after the storm, and the mud quite dry and caked on the surface, I sank through the lava-like crust where it was at all deep. All the way down the centre of this track—and the same was the case with the others—the roots of the fern were burnt and blackened. Some inhabitants of farms just below, one of which may be seen in Fig. 2, were so frightened that they abandoned their houses at night ; and one farmer said he saw a ball of fire running down the hill. The worst of the storm was between 3 and 4 p.m. In Fig. 2, a smaller but quite independent "thunder-bolt" track may be seen on the left.

Fig. 3 (Plate II.) shows the start of another track, and depicts in a vivid manner how the rock was shattered.

Fig. 4 is a view looking to the north-west along the ridge, showing the track of the large "shoot" of Fig. 2 in the middle foreground. This photograph gives a good idea of the steepness of the slope down which the debris was washed, the fence at which the trail of debris stops in Fig. 2 being seen also in Fig. 4.

On the other side of the ridge, *i.e.* in the Llanthony valley, the

EFFECTS OF THUNDERSTORM OF 22nd JULY, 1907.



FIG. 3.



FIG. 4.





storm expended its fury in hail. Hundreds of fish were killed or were washed out of the river ; trees were stripped of foliage, the hail was washed down the hillside in white waves, and ten full days after the storm it had not all melted. A rain gauge in the grounds of Mr. P. B. Barneby, Trewyn, Pandy, 2 to 3 miles distant, showed 3·13 in. rain. After the storm the people said there was a sickening sort of sulphurous smell. I may add that the tracks torn out of the hillside were plainly visible from my house at Kentchurch, about 7 miles away, and though not so conspicuous four months after the storm it will be many years before all traces of them disappear, if they ever do so. Of course the places where the lightning first struck the hill will always be visible. I found some circular balls of hardened mud larger than a football, which had made themselves in the various tracks in their descent.

## ON MAPPING RAINFALL.\*

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IN considering the distribution of rainfall, as in considering any other problem scientifically, we require to use terms with a definite meaning, and I hope that I may be excused for assigning definite meanings to familiar English words instead of importing classical terms which, despite a grander display of syllables, can mean no more. For convenience I use the term *mean* as indicating the sum of any number of figures divided by that number, reserving the word *average* for the mean of a number of figures representing values in order of time. Thus the mean of thirty annual rainfall values is spoken of as the average rainfall for thirty years. The mean of a number of uniformly distributed figures representing the distribution of rainfall in space I speak of as the *general* rainfall of the area concerned; thus the mean depth of rainfall over England for any day, month, or year, is the *general rainfall* of England for that particular day, month, or year. The mean of the general rainfall of England for thirty years is expressed as the *average general rainfall* of England for thirty years. A line passing through points having the same rainfall is an isohyetal line, or *isohyet*—the term having been already introduced is retained on account of its similarity to isotherm and isobar. The line joining successive positions of the centre of an atmospheric depression or cyclone is the *track* of the depression. The isohyetal lines representing the distribution of rainfall in a shower may be termed the *splash* of the rainfall, and the isohyets representing the rainfall of one or several days for a considerable stretch of country along the track of a depression, which is the generalisation of a succession of splashes, may be called the *smear* of the rainfall of that depression. These are all the special terms which it will be necessary to use.

The first use of maps in the routine of the collection of data in the office of *British Rainfall* is as a detective agency for the discovery

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\* Extract from Address to Royal Meteorological Society, 20th January, 1908, by Dr. H. R. Mill. The address is published *in extenso*, with illustrations, under the title of "Map Studies of Rainfall," in the *Quarterly Journal* of the Royal Meteorological Society, Vol. 34, No. 146, April, 1908.

of accidental errors. The monthly totals from about 700 stations are entered upon a map of the British Isles as they are received, and isohyetal lines are drawn for each inch, and sometimes, when the range of rainfall is small, for each half-inch. It is almost always found that the rainfall varies from point to point in a regular manner, though not always in the same way, and when one figure is observed much larger or much smaller than those surrounding it, a careful examination of the record almost invariably shows it to be an error. When the same station shows a discordant figure month after month, the error is almost always traced to some imperfection of the rain gauge, or some mistake in its exposure. Wilful errors on the part of observers are so very rare that I cannot say I have ever been able to satisfy myself as to one. Now and again, it is true, an individual anxious to prove the dryness of his neighbourhood may neglect small falls, now and again another may give undue importance to such small falls, but as a rule observers' errors are due to honest mistakes or simple carelessness. The commonest sources of systematic error are reading the gauge at some hour other than 9 a.m., or entering the result to the date of reading instead of to the previous day. It is obvious that erroneous returns are most easily detected in the crowded parts of the map.

Annual returns are plotted in the same way, but the figures to place upon the map now amount to thousands instead of hundreds, and the isohyets, which can be defined with much greater detail, must be drawn at intervals of 5 or sometimes 10 inches; but the discordance of erroneous observations is none the less apparent, and errors due to instrumental deficiencies which were too small to show in the monthly figures may emerge into prominence on the annual map. The comparison of one record with a number of others in MS., or in printed form, is a slow and tedious process, whereas the comparison of the figures placed upon a map is simultaneous and almost automatic.

The detail with which the isohyetal lines can be drawn depends on the number of points for which data are available and on the uniformity of their distribution. Cases occur, however, where irregular distribution is a help, when, as rarely happens, observations are most numerous in places where the rainfall changes much in a short distance, and least numerous in places where there is little variation.

The rainfall map, after plotting all available figures and before

drawing the isohyets, makes those parts of the country where observations are fewest very conspicuous by their blankness, and so directs attention to the districts where additional observers have to be sought.

On a large scale map it is impossible to draw isohyets across the blank spaces with any confidence as to minute accuracy, though the general run of the lines can usually be approximated to by following the prominent physical features of the country, or by preserving a general congruence with the curves for which there are data sufficient. It is difficult as yet to lay down rules, but experience brings facility in overcoming these difficulties, and two persons accustomed to draw such maps usually arrive at the same results. There is particular gratification when, as has more than once occurred, returns from the centre of a blank area have come in after the map was drawn, and the observed value fits so well that it does not require a line to be deviated for its accommodation.

The study of daily rainfall by making isohyetal maps is beset by a few special difficulties. The record used must be "perfect," that is to say, it must represent the result of examining the rain gauge at 9 a.m. on every day in the year whether rain has fallen or not, and the amounts must be entered to the date of the commencement of the 24 hours the reading for which is recorded. Although every year shows improvement in the directions of accuracy and uniformity, it is still very difficult to draw a rainfall map of a large area for a day of light rainfall. The rainfall of two days is apt to be confused, or a small fall may be omitted on its proper day and swell the amount on some other date. In the case of a very wet day, say the wettest day of the year, for any small area, mapping becomes quite easy, and one may have complete confidence in the result. Falls of more than one inch of rain as a rule stand out conspicuously, and serve as index marks by which the trick of entering the readings to the "wrong day" may in most cases be readily detected.

For the last seven years maps of the rainfall on the wettest days have appeared in each issue of *British Rainfall*, and the study of these maps reveals some interesting facts. A heavy rainfall it is seen, rarely prevails over a wide area, and it is sometimes very restricted indeed. Two types of rain distribution on wet days may be distinguished as (a) the small, narrow, and often radiating splashes of thunderstorm rains, and (b) the wide uniform smears of the rain accompanying cyclonic disturbances. Both varieties of heavy

rain have this in common, that they fall impartially on high ground or low ground, their incidence and outline showing no apparent relation to the configuration of the country. It seems, on studying the maps of a large number of wet days, that the causes determining the fall of the rain on these occasions are to be sought in the air alone, and that at a level so far above the surface that inequalities of ground, even amounting to several thousand feet, are without direct influence upon them. It is perhaps too soon to speak with certainty on this subject, as heavy falls of the two types on individual days have not yet been mapped in every part of the British Isles—nor very often in any part; such instances as are available point to the general conclusion stated.

The natural unit to adopt in mapping heavy precipitation is not the day, for heavy falls of the thunderstorm type are of such intensity that the full amount, even up to three or four inches, usually falls in from one to three hours only; whereas heavy falls of the cyclonic type are usually gentler, but more persistent in character, so that the precipitation may require many hours in which to accomplish itself, and may even extend without intermission over parts of three days. The remarkable cyclonic rain of June 13-15, 1903, in the lower valleys of the Thames and Lee lasted for close on 60 hours. Thus in mapping thunderstorm rains the day is so long a time that there is a risk of including more than one storm, and so losing the characteristic outline and variation of intensity of the single splash. In the case of cyclonic rains, on the other hand, the day is often too short, and only takes account of a portion of the shower. There are many cases where a day's rain is entirely due to one thunderstorm, and many where the whole of a cyclonic storm is included within a day; but it more often happens that the onward movement of the cyclonic system requires account to be taken of the fall of two or three days.

The commencement of a snowstorm is more easily noted, and more likely to attract attention than that of a shower of rain, and in the case of the Christmas snowstorm of 1906, it was possible to prepare maps showing isochronic lines as well as lines of equal depth of snow.

Proceeding now to maps of the rainfall of a longer period such as a month, the total amount of which is often less, though usually more, than that of one of the wettest days, we find a curious divergence in character. Some months present a close resemblance in type to a wet day, or to a long cyclonic rain, the rain showing little regard to

configuration of the ground ; and this is not surprising, since it is no uncommon occurrence in summer for more than half of the rainfall of a month to fall in a thunderstorm on a single afternoon, or for this to occur at any time in a prolonged cyclonic rain. Thus the three days, June 13-15, determine the character of the rainfall map of June, 1903.

On account of the great variation in the rainfall of a month, from nothing up to 6 or 10 or more inches, a very long period is necessary before average values can be secured which would not be considerably affected by the addition of a month of minimum or maximum rainfall. Thus if the average rainfall of one month for 30 years is 4·00 in., the average for 31 years would be raised to 4·19 in. if the rainfall of that month in the thirty-first year were 10·00 in., and reduced to 3·87 in. if the rainfall were nothing, the difference to be expected being a range of 8 per cent. If the period were increased to 50 years the corresponding range would be only 5 per cent., and there are no records long enough to reduce the range appreciably below this figure. Hence it is practically impossible to compile an average map of monthly rainfall from which the disturbing influence of occasional very wet days would be eliminated.

As a rule, however, monthly maps of rainfall closely resemble each other in their general character, and if we disregard those amongst them which bear the impress of one particularly wet day or spell, we cannot but be struck by the close relation which the amount of rainfall bears to the configuration of the land. The monthly rainfall map, in fact, is usually a blurred impression of the hypsographical map ; the region where high land prevails is that where high rainfall prevails, and the region of low land is the region of low rainfall, whether it be inland, or on the east coast, or on the west coast, while there is reason to believe that the general rainfall over the sea is less than that over the land.

The total rainfall of a year, when plotted, rarely shows much influence of individual wet spells, and a collection of annual rainfall maps does not present the diversity of feature found in a collection of monthly maps. The general resemblances are so great, and the diversities so unimportant that, speaking broadly, the run of the isohyetal lines is similar for the wettest or the driest year on record, for 1872 or 1887 ; though the general rainfall for the whole of the British Isles was 53·0 in. in the former case and only 30·5 in. in the latter. An average map was prepared in 1903\* for the period

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\* *Minutes of Proceedings, Inst. C.E.*, vol. 155 (1903-4), Part 1.

1870-99, 30 years, based upon a selected list of 380 stations for which 30 continuous years of observations were available, and raised to 1050, by including somewhat shorter records reduced by calculation to the equivalent amounts for 30 years. The general rainfall of the British Isles deduced from this average map was 39·5 in. The stations were as nearly equidistant as possible, and the isohyetal lines were drawn with reference to the figures solely on a map devoid of natural features, either land-relief or rivers. The result was to confirm a fact that had long been accepted as true, viz., that the rainfall was greatest in the neighbourhood of high land or diversified country, and least on low or level ground. In fact, the map of average rainfall presented a closer resemblance to the map of configuration than did any of the rainfall maps of individual years, and it might be said to be a less blurred impression than they. The isohyets were similar in their direction to the isohyets of individual years, though no year is a precise duplication of any other either as regards relative distribution or actual amount of rain, and in 1903, at least, the influence of an unprecedentedly wet period in a dry region is distinctly shown.

Much more detailed pieces of mapping have since been done of counties,\* and groups of counties, and in every case the distribution of average rainfall for a period of 35 years has been found to show a detailed relation to the configuration of the land. The best instance of this is to be found in the map of Kent and Sussex, with portions of adjacent counties, where the influence of the hills and valleys of the south-east of England on the distribution of rainfall is beautifully shown. So close is the relation where observations are numerous, that it seems reasonable to cross bare places by following the lines of the configuration of the land. It must be remembered that in drawing a line through an irregular group of determining figures we have to be guided by probability, and that to rule a straight line between two points that are fairly fixed is in most cases to adopt the least probable route that could be imagined; the contour lines of level usually suggest the outline of the most probable route from point to point.

For many practical purposes it is important to ascertain the total volume of water which falls as rain on particular areas, and when the

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\* See the *Water Supply Memoirs* of the Geological Survey for the counties of Lincoln, Suffolk, York (E. Riding), Bedford, Northampton, Kent, Sussex and Oxford.

area is large, a river basin for example, the only really satisfactory way is by the use of a rainfall map. The problem of finding the general rainfall of an area on which there are numerous records appears to most people at first sight to be solved by the simple process of taking the mean of all the records which exist. A little thought, however, is sufficient to show that it is only in very rare circumstances that this is the best course to follow. It is only when the stations are uniformly distributed over the whole area, and sufficiently numerous to represent all the different intensities of rainfall proportionally, that a mean of all the figures can give the true general rainfall. When there is little difference between the rainfall in different parts of the area a comparatively small number of stations will suffice to give a representative mean value ; but the greater the diversity is, the greater is the number of stations required for the purpose. When, as in this country, the rainfall records are not taken at selected points chosen as to position and number, but here and there for the most part at the hazard of the grouping of the homes of the one ten-thousandth of the population interested enough to become observers, stations are not sprinkled uniformly over the surface, but clustered together in favoured residential districts and totally lacking in many large areas. The mean of such irregularly distributed stations can only represent the general rainfall by accident. Thus if in a county there are 30 rain gauges in a hilly district of 400 square miles, and 5 in a stretch of level fenland extending for 1,000 square miles, the mean of the 35 records would give far too high a figure for the rainfall of the county. Even one phenomenally wet station may greatly disturb and misrepresent the rainfall of the county ; for example, if the records of the three rain gauges at The Styne are included amongst 50 stations in Cumberland, the mean for the whole county would be raised several inches above the true general fall. It is difficult,—indeed, I have sometimes found it impossible,—to convince people who are intelligent in most matters, that by omitting half the records of rainfall one could in certain cases obtain from the mean of the rest a far closer approximation to the general rainfall than by taking the mean of all. Dealing with numerals alone in a tabular form they fail to see that space and grouping have to be considered as well as number, and that in taking an arithmetical mean as expressing the general value they are making the great and unwarranted assumption that the distribution of the stations is uniform and representative.



When all the data are placed upon a rainfall map the drawing of isohyetal lines involves some assumptions also, as we have seen ; but these are of a smaller and more reasonable kind. From an isohyetal map the general rainfall can be obtained by various methods. One of these, and perhaps the most accurate, is to construct a number of sections along parallel lines at close intervals across the map, the co-ordinates being distance and depth of rain, then measuring the area of each section, adding all the areas together, and dividing by the total length of the sections to give the general rainfall.

A simpler method is to measure the area between consecutive isohyetal lines upon the map, multiply the area by the general rainfall of the zone, add all the resulting figures together and divide by the total area. For convenience I measure the areas in square miles to the third decimal place, and the rainfall in inches to the second decimal place, the resulting volume of rain being given in the conveniently large units of the square-mile inch which is equal to 14,480,000 gallons. The only serious risk of error in this method lies in estimating the general rainfall of the zones, and this is much less than might appear at first. Where the isohyets are numerous and equally spaced it is safe to take the general rainfall of the zone, between say 30 and 35 inches, as the mean of the two limiting values *i.e.*, at 32·5 inches. Where, however, the isohyets are becoming successively nearer, or successively farther apart, from the lower to the higher value, it is necessary to allow in the former a lower, and in the latter a higher value than the mean. In practice the actual figures usually serve to show whether the mean value has to be diminished or augmented, and by what amount ; and even if this rectification is not made the error in most instances is not a great one. All calculations of the volume of rainfall are subject to the limits of accuracy of the individual observations, and it is taking a very favourable view to assign one-tenth of an inch as the smallest difference which has any significance in the figure for annual rainfall.

## RECORDS OF EVAPORATION AND PERCOLATION.

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WE are able to print two additional records of evaporation for 1907, making a total of 13, and one additional record of percolation. The Southwold record has come to an end, but we have new records from Isfield Place in Sussex, Harlow Moor in Yorkshire, and the Talla Waterworks in Peeblesshire, and we hope to receive others next year.

The Camden Square record has again been subjected to a careful comparison with other meteorological elements, and although the figures of 5-day means are not printed the results, smoothed by the method explained in *British Rainfall*, 1905, p. 36, are presented in the form of a diagram. The diagram is simplified by omitting the mean shade temperature, relative humidity and duration of rainfall, and by taking the mean of the closely accordant temperatures of the water at the surface and bottom of the evaporation tank. One new feature is added, the readings of the Wilson radio-integrator, a new instrument designed to measure total solar radiation, which was presented by an Observer. This instrument, the general form of which is shown in Fig. I, is a sort of sealed retort for the distillation

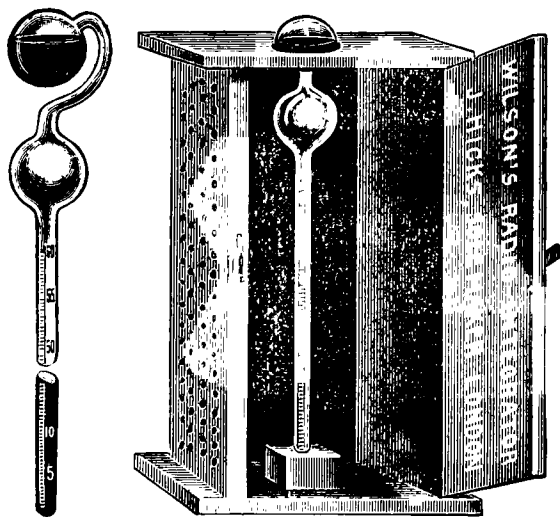


FIG. I.—THE WILSON RADIO-INTEGRATOR.

of a volatile liquid, presumably *in vacuo*, by the heat of the sun. When set, the whole of the liquid is in the upper bulb which is exposed to the sun, while the lower bulb and tube are sheltered in a white-painted perforated box. The liquid as it evaporates is condensed in the lower bulb and trickles down into the tube, which is graduated according to an arbitrary scale. The amount of liquid evaporated in the previous 24 hours is read daily at 9 a.m., and recorded in terms of the divisions engraved on the glass tube. The readings commenced in July, 1907, and we do not propose to discuss them in detail until a complete year's record is available. Meanwhile we only draw attention to the remarkably close resemblance of the curve to that of evaporation from an exposed water surface during the months of August and September, and the featurelessness of the radio-integrator curve in November and December. As in previous years the evaporation curve is seen on the whole to follow the duration of sunshine and black-bulb temperature curves in summer, and the mean temperature curve of water and soil at one foot in winter. The curve of wind-velocity appears to have very little relation to that of evaporation, contrary to the hypothesis we set out to test. The mean air temperature curve would have been tangled with curves of water temperature and one foot soil temperature, the three being practically identical, though the soil temperature lags behind the others both in falling and rising.

The evaporation curve differed from those of the previous two years by only once touching the line of .50 in. evaporation in 5 days ; but its general form and irregularities were similar to those in 1905 and 1906. The premature rise of evaporation with the outburst of sunshine at the end of March, the depressions caused by the gloomy periods in summer, and the sharp check and partial recovery in the autumnal fall due to the heat of September, are very prettily shown. The periodicity of the curve of wind-velocity is curiously regular and accordant with that of rainfall.

The comparative table of monthly evaporation at Camden Square shows that during 1907 the total evaporation was less than in any year since 1902, but 8 out of the 23 years had less. The five winter and spring months—January, February, March, November, and December had evaporation in excess of the average, and so had the exceptionally dry September. The evaporation in March was never exceeded, and that in September only three times. The low evaporation of the five consecutive months, April-August turned

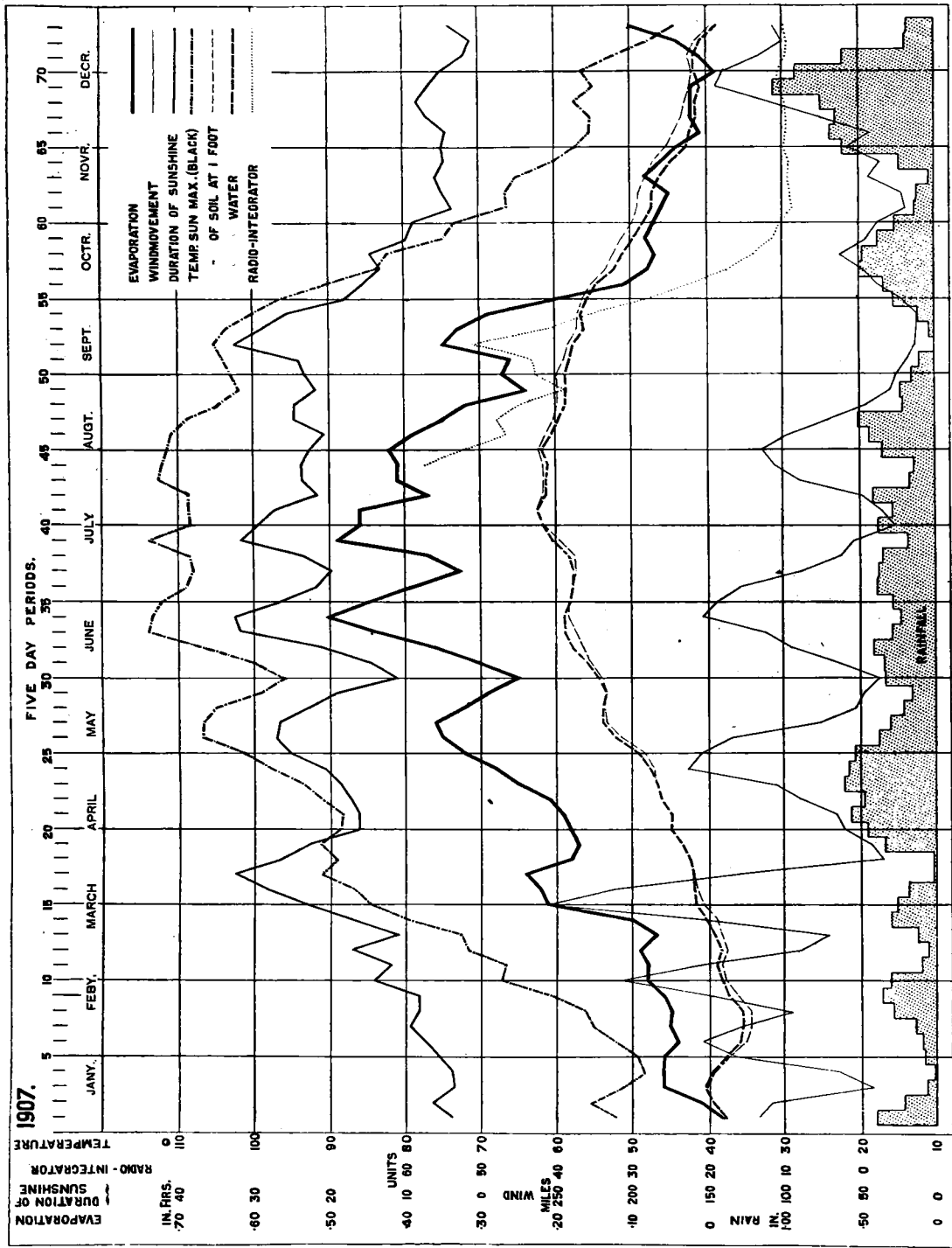
the excess into a substantial deficiency for the year, although no month was worse than it had been in several other years.

The average evaporation at the 13 stations was 15·94 in., but the range was exceptionally great. Arranging the evaporation for the year in order of magnitude we have :—

	in.		Size of tank.
Downholland, Lancashire...	20·21	.....	6 ft. × 6 ft.
Croydon, Surrey .....	20·11	.....	1 ft. in water.
Kennick, Devon .....	18·29	.....	6 ft. × 6 ft.
Isfield Place, Sussex .....	17·76	.....	4 ft. × 4 ft.
Otterbourne, Hampshire ...	17·76	.....	6 ft. × 6 ft.
Bolton, Lancashire.....	17·35	.....	„ „
Harlow Moor, Yorkshire ...	15·78	.....	?
Camden Square, London ...	14·84	.....	6 ft. × 6 ft.
Ardsley Res., Yorkshire ...	14·81	.....	„ „
Revesby, Lincoln .....	13·15	.....	„ „
Talla Waterworks, Peebles	13·00	.....	„ „
Falkirk, Stirling.....	12·18	.....	8 ins. in water.
Wakefield, Yorkshire .....	11·93	.....	6 ft. × 6 ft.

It is quite evident that local conditions must have a very powerful effect on the indications of the evaporation gauges, and even if we compare only the standard gauges, leaving the small diameter gauges floating on water, out of account, the figures are hard to reconcile. The gauges at Ardsley Reservoir and Stanley Grange, Wakefield, are only a few miles apart; we have inspected them both and found them identical in size and pattern and both attended to with the same conscientious care. The exposure differs somewhat, but that it should make a difference of nearly 3 inches in the evaporation seems unreasonable. The idea suggests itself that an almost imperceptible leak may exist in the Stanley Grange tank, allowing of a slight leakage which might amount to a good deal in the course of a year; but if this were so the differences ought to be approximately equal, whereas they are relatively large in summer and small or even in the opposite direction in winter. In the case of Falkirk the calculated evaporation from the percolation observations is, as on previous occasions, higher than the direct measurements; and it seems possible that the truth may lie between the two. The percolation observations at Rothamsted which are given this year for the first time are interesting in showing that there is no appreciable difference in the amount of rain which percolates through 20, 40, or 60 inches of the same soil.

# EVAPORATION FROM A WATER-SURFACE AND OTHER METEOROLOGICAL PHENOMENA.





*Evaporation at Camden Square, 1885-1907.*

	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
Average	·09	·26	·67	1·52	2·35	2·94	3·18	2·39	1·35	·62	·23	·08	15·68
1907.	·21	·38	1·02	1·27	1·93	2·47	2·65	2·24	1·72	·49	·27	·19	14·84
Diff.	+·12	+·12	+·35	—·25	—·42	—·47	—·53	—·15	+·37	—·13	+·04	+·11	—·84

NOTE.—c indicates condensation.

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

1907	Evaporation from 12 in. Evaporator floating in Water.	Condensation in 12 in. Evaporator floating in Water.	Average daily Temperature of Water at 9 a.m. in 12 in. Evaporator floating in Water.	Evaporation from 5 in. Evaporator fully exposed in Air.	Condensation in 5 in. Evaporator fully exposed in Air.	Average daily Temperature of Water at 9 a.m. in 5 in. Evaporator fully ex- posed in Air.	Temperature of the Dew Point at 9 a.m.
	in.	in.	°	in.	in.	°	°
Jan. ...	·500	—	37·50	·735	—	...	33·24
Feb. ...	·365	·02	35·08	·955	—	36·43	32·50
March	1·290	·01	41·31	3·230	—	42·89	36·63
April .	1·650	·01	48·33	2·880	—	49·21	40·76
May...	2·570	—	56·79	4·260	—	59·75	45·51
June..	3·125	—	61·09	4·825	—	64·18	49·52
July...	2·870	—	63·11	4·840	—	65·83	52·06
Aug. ...	2·960	—	63·56	5·060	—	66·81	53·57
Sept...	1·870	—	60·08	3·320	—	61·07	53·26
Oct. ...	1·415	·01	52·39	2·215	—	52·67	49·17
Nov. ...	·630	·06	45·18	·950	·02	43·31	42·58
Dec...	·865	·05	40·05	1·215	·01	39·61	38·24
Total .	20·110	·16	...	34·485	·03	...	...
Mean .	...	...	50·37	...	...	...	43·92

*Table of Rainfall and Percolation at Park Hill House, Stanhope Road, Croydon,  
also at the South Hants Water Company's Pumping Stations, at Timsbury  
and Twyford, Hants. Mr. Baldwin Latham, M.Inst.C.E.*

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

1907	PARK HILL HOUSE.			TIMSBURY.		TWYFORD.	
	Rainfall. Level of Gauge 265·00 ft above O.D.	Percolation Gauge. Chalk. Level of Gauge 264·00 ft. above O.D.	Percolation Gauge. Gravel. Level of Gauge 264·00 ft. above O.D.	Rainfall. Level of Gauge 96·39 ft. above O.D.	Percolation Gauge. Chalk. Level of Gauge 89·75 ft. above O.D.	Rainfall. Level of Gauge 138·72 ft. above O.D.	Percolation Gauge. Chalk. Level of Gauge 137·49 ft. above O.D.
	in.	in.	in.	in.	in.	in.	in.
Jan. ....	1·295	1·2363	1·2154	·79	1·0618	·73	1·0149
Feb. ...	1·645	1·2384	1·1588	1·53	·9455	1·60	1·2088
March...	·950	·3442	·2371	·68	·1103	·89	·5353
April ...	3·820	1·4513	1·2144	3·69	1·2339	3·73	1·5893
May.....	1·920	·7152	·3618	2·09	·2702	1·93	·5157
June ...	2·035	·2505	·0258	1·25	·0072	1·68	—
July.. ...	·820	·0002	—	1·11	·0100	1·28	—
Aug. ...	2·330	·0002	—	2·06	·0112	2·55	—
Sept. ...	·710	—	·0013	·45	·0171	·49	—
Oct. ....	3·645	—	·0063	8·33	2·4480	8·38	4·0440
Nov. ...	2·760	1·3520	·7310	2·98	2·7686	2·79	2·5531
Dec.....	3·375	3·1393	2·9782	4·15	4·3769	4·66	4·5045
Total ...	25·305	9·7276	7·9301	29·11	13·2607	30·71	15·9656



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

1907.	Rainfall.	Percolation through Soil.		
		20 in. deep.	40 in. deep.	60 in. deep.
	in.	in.	in.	in.
January .....	1·24	·863	·956	·966
February .....	1·45	·958	1·047	1·025
March .....	1·29	·057	·155	·107
April .....	2·85	·567	·539	·509
May .....	2·38	·288	·384	·356
June .....	2·48	·358	·391	·366
July .....	2·16	·276	·259	·236
August .....	1·68	·003	·016	·013
September .....	·72	—	—	—
October .....	4·88	2·943	2·830	2·713
November .....	2·42	1·910	1·982	1·940
December .....	3·44	3·064	3·201	3·165
Total .....	26·99	11·287	11·760	11·396

*Table of Rainfall and Percolation through Sandy Soil, also Calculated Evaporation therefrom, compared with Evaporation from a Free Water Surface at Cauldhame, Falkirk.*

Lat. 56° 0' 37" N. Long. 3° 48' 3" W.

Rain Gauge 73 feet above O.D., and Percolation Gauge 76 feet above O.D.

MR. DAVID RONALD, C.E.

1907	Rainfall.	Percolation.	Calculated Evaporation from Sandy Soil.	Evaporation from Free Water Surface.
	in.	in.	in.	in.
January .....	2·26	1·35	·91	·51
February ...	2·81	2·74	·07	·28
March .....	3·21	2·14	1·07	·89
April .....	1·61	·46	1·15	1·11
May .....	3·90	·48	3·42	1·65
June .....	4·45	2·36	2·09	1·62
July .....	1·96	·58	1·38	2·12
August .....	4·45	·94	3·51	1·86
September ...	1·36	·38	·98	1·04
October .....	6·11	3·98	2·13	·34
November ...	1·63	1·28	·35	·49
December ...	5·55	4·38	1·17	·27
Total .....	39·30	21·07	18·23	12·18

NOTE.—The Percolation Gauge is filled with one cubic yard of soil, placed in gauge and in same order as dug from the earth, with natural growth of grass on surface. Size of gauge 3 feet square and 3 feet deep. Surface of grass 1 inch below lip of gauge.

## EVAPORATION IN 1907.

County Station	London, Camden Sq.	Surrey, Croydon, Park Hill Ho.	Sussex, Isfield Place	Hampshire, Otterbourne	Devon, Moretonhamstead. Kennick	Lincoln, Revesby Water Works	Lancashire, Downholland
Latitude .....	51° 32' 20" N.	51° 22' 12" N.	50° 56' 50" N.	51° 0' 28" N.	50° 38' 30" N.	53° 9' N.	53° 34' 38" N.
Longitude .....	0 8 10 W.	0 5 32 W.	0 33 40 E.	1 19 55 W.	3 41 20 W.	0 3 W.	3 1 12 W.
Altitude .....	111 ft.	264 ft.	50 ft.	112 ft.	842 ft.	130 ft.	14 ft.
Observer .....	H.R. Mill, D.Sc.	Baldwin Latham, C.E.	Major H. King.	W. Matthews, C.E.	S. C. Chapman, C.E.	J. Shaw	J. Baxendell.
Size of tank .....	6 ft. × 6 ft.	1 ft. diameter	4 ft. × 4 ft.	6 ft. × 6 ft.	6 ft. × 6 ft.	6 ft. × 6 ft.	6 ft. × 6 ft.
Capacity (galls.) ...	450	5	250	450	450	450	450
Height of lip above ground .....	3 inches	4 in. above water	3 inches	3 inches	3 inches	2 inches	3 inches
January .....	in. ·21	in. ·50	in. ·16	in. ·34	in. 0·03	in. 0·01	in. ·32
February .....	·38	·37	·27	·27	·40	·04	·38
March .....	1·02	1·29	1·37	1·20	1·39	·90	1·44
April .....	1·27	1·65	1·55	1·50	1·77	1·52	1·98
May .....	1·93	2·57	2·25	2·29	2·24	1·96	2·75
June .....	2·47	3·12	2·83	2·78	2·73	1·93	3·37
July .....	2·65	2·87	2·85	3·51	3·29	2·01	3·23
August .....	2·24	2·96	2·55	2·74	2·80	2·01	2·99
September .....	1·72	1·87	1·71	2·00	1·88	1·54	1·81
October .....	·49	1·42	1·11	·41	1·26	·78	1·05
November .....	·27	·63	·51	·18	·55	·33	·42
December .....	·19	·86	·60	·54	·01	·14	·47
Year, 1907 .....	14·84	20·11	17·76	17·76	18·29	13·15	20·21
Average, 1898-1907	16·71	16·38	...	18·88	19·97	16·32	(22·05)
Difference .....	-1·87	+3·73	...	-1·12	-1·68	-3·17	-1·84
Year, 1907 .....	23·01	25·30	26·21	25·62	41·66	25·61	30·16
Average, 1898-1907	23·55	24·82	...	26·81	39·62	23·90	28·62
Difference .....	-·54	+·48	...	-1·19	+2·04	+1·71	+1·54

Note.—C indicates condensation.

EVAPORATION.

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County Station	Lancashire, Bolton, Heaton	Yorkshire, Wakefield, Stanley Grange	Yorkshire, Ardley Reservoir	Yorkshire, Harrogate, Harlow Moor	Pebbles, Talla W. W. Victoria Lodge	Stirling, Falkirk, Cauldham,	Mean of Thirteen Stations.
Latitude.....	53° 31' 55" N.	53° 45' N.	53° 43' 10" N.	54° 0' N.	55° 29' 41" N.	56° 0' 37" N.	
Longitude .....	2° 28' 21" W.	1° 28' W.	1° 33' 20" W.	1° 36' W.	3° 25' 2" W.	3° 48' 3" W.	
Altitude .....	521 ft.	234 ft.	390 ft.	480 ft.	904 ft.	73 ft.	
Observer.....	R. H. Swindhurst, C.E.	H. Stanley Haworth	C. C. Smith, C.E.	F. J. Dixon, C.E.	W. A. Tait, C.E.	David Ronald, C.E.	
Size of tank .....	6 ft. x 6 ft.	6 ft. x 6 ft.	6 ft. x 6 ft.	...	6 ft. x 6 ft.	8 in. diameter.	
Capacity (galls.)	450	450	450	...	450	1½	
Height of lip above ground }	3 inches	...	3 inches	...	3 inches	2 in. above water	
January .....	in. .27	in. .21	in. .32	in. .26	in. .10	in. .51	in. .24
February .....	.20	.26	.21	.20	.00	.28	.25
March .....	1.24	.98	1.23	1.17	.89	.89	1.16
April .....	1.63	1.33	1.46	1.34	1.68	1.11	1.52
May.....	2.54	1.41	1.83	1.66	1.78	1.65	2.07
June .....	2.58	1.89	2.29	2.65	1.33	1.62	2.43
July .....	2.65	1.85	2.36	2.57	2.52	2.12	2.65
August .....	2.43	1.87	2.42	2.53	1.63	1.86	2.39
September .....	1.78	1.04	1.45	1.47	1.53	1.04	1.60
October .....	1.11	.58	.83	.98	.96	.34	.87
November .....	.52	.34	.29	.57	.30	.49	.42
December .....	.40	.17	.12	.38	.28	.27	.34
Year, 1907.....	17.35	11.93	14.81	15.78	13.00	12.18	15.94
Average, 1898-1907 }	...	...	...	...	...	...	...
Difference .....	...	...	...	...	...	...	...
Year, 1907... Average, } 1898-1907 }	46.46	22.35	25.22	34.45	47.71	39.30	31.77
Difference ...	42.16	22.95	...	30.69	...	...	...
	+4.30	— .60	...	+3.76	...	...	...

## THE DURATION OF RAINFALL IN 1907.

At Camden Square, though the number of rain days was 10 per cent. above the average, the total duration of rainfall was only 1 per cent. above the average; but the amount of rain was 4 per cent. below, so that the intensity, per hour, of the fall of rain was 6 per cent. below the average. The least duration and greatest intensity of rainfall were reported from Croydon, the greatest duration (more than 3 times that at Croydon) and the lowest intensity of rain were reported from Melbury. Otherwise the returns on this occasion call for no remark.

*Comparison of Amount, Duration and Intensity of Rainfall, and number of Rain Days at Camden Square with the Average for 26 years, 1881-1906.*

YEAR.	AMOUNT.		DURATION.		INTENSITY.		RAIN DAYS.	
	Total.	Per cent. of average	Total.	Per cent. of average	Rate per Hour.	Per cent. of average	Total.	Per cent. of average
	in.		hours		in.			
1881	27·92	116	486·3	117	·057	97	152	95
1882	27·14	113	480·7	116	·056	96	165	103
1883	24·40	102	393·5	95	·062	106	164	103
1884	20·35	85	336·8	81	·060	103	150	94
1885	26·64	111	470·0	113	·057	97	165	103
1886	27·01	113	427·2	103	·063	108	176	110
1887	19·21	80	300·3	73	·064	110	140	88
1888	27·74	116	435·7	105	·064	110	173	108
1889	23·85	99	428·5	103	·056	96	169	106
1890	21·23	88	409·5	99	·052	89	161	101
1891	28·15	117	490·3	118	·057	97	178	112
1892	22·61	94	372·5	90	·061	104	158	99
1893	19·80	82	388·0	94	·051	87	148	93
1894	27·94	116	477·7	115	·058	99	M 185	116
1895	21·47	89	380·0	92	·057	97	137	86
1896	23·52	98	404·3	98	·058	99	157	98
1897	22·86	95	371·2	90	·062	106	164	103
1898	m 17·69	74	m 298·5	72	·059	101	140	88
1899	22·54	94	337·5	82	·067	115	144	90
1900	23·28	97	366·3	88	·064	109	173	108
1901	22·17	92	310·2	75	M ·071	121	m 128	80
1902	20·84	87	352·5	85	·059	101	162	101
1903	M 38·10	159	M 688·5	166	·055	94	179	112
1904	20·65	86	491·8	119	m ·042	72	160	100
1905	22·97	96	456·4	110	·050	86	162	101
1906	24·26	101	420·4	101	·058	99	163	102
Average.	24·01	100	414·4	100	·0585	100	159·7	100
1907	23·01	96	418·8	101	·055	94	175	110
Difference from average	- 1·00	- 4	+ 4·4	+ 1	- ·0035	- 6	+15·3	+10

*Duration of Rainfall at Camden Square in 1907.*

DR. H. R. MILL.

1907.	Rainfall.	Duration.	Rate per hour.	Number of rain days.	Rate per rain day.	Duration per rain day.
	in.	hours.	in.		in.	hours.
January .....	·90	18·1	·050	8	·11	2·3
February .....	1·17	23·4	·050	13	·09	1·8
March .....	·97	28·0	·035	13	·07	2·2
April .....	3·22	65·6	·049	18	·18	3·6
May .....	1·74	35·9	·048	18	·10	2·0
June .....	2·03	31·0	·065	19	·11	1·6
July .....	1·96	23·8	·082	15	·13	1·6
August .....	1·94	27·3	·071	13	·15	2·1
September .....	·62	12·2	·051	8	·08	1·5
October .....	2·51	52·8	·048	22	·11	2·4
November .....	2·16	43·6	·050	12	·18	3·6
December .....	3·79	57·1	·066	16	·24	3·6
Year .....	23·01	418·8	·055	175	·13	2·4

*Duration of Rainfall at Park Hill House, Stanhope Road, Croydon,  
in 1907.*

MR. BALDWIN LATHAM, M.Inst.C.E.

1907.	Rainfall.	Duration.	Rate per hour.	Number of rain days.	Rate per rain day.	Duration per rain day.
	in.	hours.	in.		in.	hours.
January .....	1·29	16·7	·077	12	·11	1·4
February .....	1·65	27·5	·060	12	·14	2·3
March .....	·95	24·2	·039	12	·08	2·0
April .....	3·82	67·4	·057	18	·21	3·7
May .....	1·92	32·3	·059	18	·11	1·8
June .....	2·03	22·3	·091	17	·12	1·3
July .....	·82	10·2	·080	14	·06	0·7
August .....	2·33	26·6	·088	16	·15	1·7
September .....	·71	10·4	·068	8	·09	1·3
October .....	3·65	58·0	·063	24	·15	2·4
November .....	2·76	47·9	·058	19	·15	2·5
December .....	3·37	42·3	·080	17	·20	2·5
Year .....	25·30	385·8	·066	187	·14	2·1

*Duration of Rainfall at Timsbury, Hants, in 1907.*

MR. BALDWIN LATHAM, M.Inst.C.E.

1907.	Rainfall.	Duration.	Rate per hour.	Number of rain days.	Rate per rain day.	Duration per rain day.
	in.	hours.	in.		in.	hours.
January .....	·79	16·4	·048	7	·11	2·3
February .....	1·53	40·0	·038	11	·14	3·6
March .....	·68	29·6	·023	11	·06	2·7
April .....	3·69	93·7	·039	21	·18	4·5
May .....	2·09	43·1	·048	17	·12	2·5
June .....	1·25	37·7	·033	19	·07	2·0
July .....	1·11	18·8	·059	12	·09	1·6
August .....	2·06	29·4	·070	13	·16	2·3
September .....	·45	16·5	·027	7	·06	2·4
October .....	8·33	126·0	·066	25	·33	5·0
November .....	2·98	68·4	·044	15	·20	4·6
December .....	4·15	77·8	·053	17	·24	4·6
Year .....	29·11	597·4	·049	175	·17	3·4

*Duration of Rainfall at Twyford, Hants, in 1907.*

MR. BALDWIN LATHAM, M.Inst.C.E.

1907.	Rainfall.	Duration.	Rate per hour.	Number of rain days.	Rate per rain day.	Duration per rain day.
	in.	hours.	in.		in.	hours.
January .....	·73	16·2	·045	6	·12	2·7
February .....	1·60	38·9	·041	9	·18	4·3
March .....	·89	25·2	·035	9	·10	2·8
April .....	3·73	94·6	·039	18	·21	5·3
May .....	1·93	36·8	·052	16	·12	2·3
June .....	1·68	31·7	·053	15	·11	2·1
July .....	1·28	19·2	·067	12	·11	1·6
August .....	2·55	30·4	·084	15	·17	2·0
September .....	·49	12·7	·039	6	·08	2·1
October .....	8·38	119·1	·070	24	·35	5·0
November .....	2·79	66·2	·042	14	·20	4·7
December .....	4·66	78·4	·059	14	·33	5·6
Year .....	30·71	569·4	·054	158	·19	3·6

*Duration of Rainfall at Melbury Reservoir, Parkham, Devon, in 1907.*

MR. BALDWIN LATHAM, M.Inst.C.E.

1907.	Rainfall.	Duration.	Rate per hour.	Number of rain days.	Rate per rain day.	Duration per rain day.
	in.	hours.	in.		in.	hours.
January .....	3·21	73·8	·043	23	·14	3·2
February .....	2·86	64·5	·044	18	·16	3·6
March .....	2·38	60·4	·039	18	·13	3·4
April .....	5·21	116·3	·045	22	·24	5·3
May .....	3·57	84·0	·042	23	·16	3·7
June .....	5·19	141·0	·037	26	·20	5·4
July .....	2·17	66·9	·032	16	·14	4·2
August .....	4·63	86·5	·054	21	·22	4·1
September .....	1·34	30·8	·044	8	·17	3·9
October .....	7·58	165·5	·046	31	·24	5·3
November .....	4·45	112·2	·040	27	·16	4·2
December .....	7·78	159·5	·049	29	·27	5·5
Year .....	50·37	1161·4	·043	262	·19	4·4

*Duration of Rainfall at Hodsock Priory, Notts, in 1907.*

COL. H. MELLISH.

1907.	Rainfall.	Duration.	Rate per hour.	Number of rain days.	Rate per rain day.	Duration per rain day.
	in.	hours.	in.		in.	hours.
January .....	·75	14·3	·052	8	·09	1·8
February .....	1·47	32·6	·045	17	·09	1·9
March .....	1·38	32·3	·043	16	·09	2·0
April .....	1·70	50·0	·034	15	·11	3·3
May .....	2·91	68·2	·043	23	·13	3·0
June .....	2·16	41·3	·052	21	·10	2·0
July .....	1·43	25·5	·056	16	·09	1·6
August .....	1·72	29·6	·058	14	·12	2·1
September .....	·51	17·5	·029	8	·06	2·2
October .....	5·35	56·9	·094	21	·25	2·7
November .....	1·91	49·9	·038	19	·10	2·6
December .....	2·37	42·9	·055	19	·12	2·3
Year .....	23·66	461·0	·051	197	·12	2·3

*Duration of Rainfall at Hesketh Park, Southport, Lancashire, in 1907.*

MR. J. BAXENDELL.

1907.	Rainfall.	Duration.	Rate per hour.	Number of rain days.	Rate per rain day.	Duration per rain day.
	in.	hours.	in.		in.	hours.
January .....	1·26	26·9	·047	15	·08	1·8
February.....	1·67	28·5	·059	14	·12	2·0
March .....	2·69	56·3	·048	15	·18	3·8
April .....	1·60	38·3	·042	16	·10	2·4
May .....	3·24	78·0	·042	22	·15	3·5
June.....	5·93	90·8	·065	23	·26	3·9
July .....	1·78	36·0	·049	14	·13	2·6
August .....	3·71	68·3	·054	18	·21	3·8
September .....	·76	12·3	·062	4	·19	3·1
October .....	3·78	74·0	·051	23	·16	3·2
November .....	2·70	70·2	·038	19	·14	3·7
December .....	3·41	48·3	·071	20	·17	2·4
Year.....	32·53	627·9	·052	203	·16	3·1

*Duration of Rainfall at Cauldhame, Falkirk, Stirlingshire, in 1907.*

MR. DAVID RONALD, C.E.

1907.	Rainfall.	Duration.	Rate per hour.	Number of rain days.	Rate per rain day.	Duration per rain day.
	in.	hours.	in.		in.	hours.
January .....	2·26	53·0	·043	17	·13	3·1
February.....	2·81	73·0	·038	11	·26	6·6
March .....	3·21	63·0	·051	17	·19	3·7
April .....	1·61	34·0	·047	16	·10	2·1
May .....	3·90	89·0	·044	19	·21	4·7
June.....	4·45	48·0	·093	25	·18	1·9
July .....	1·96	28·0	·070	15	·13	1·9
August .....	4·45	47·0	·095	24	·19	2·0
September .....	1·36	12·0	·113	11	·12	1·1
October .....	6·11	152·0	·040	25	·24	6·1
November .....	1·63	45·0	·036	14	·12	3·2
December .....	5·55	167·0	·033	25	·22	6·7
Year.....	39·30	811·0	·048	219	·18	3·7



## REPRESENTATIVE RECORDS OF DAILY RAINFALL in 1907.

## REGISTER OF RAINFALL IN 1907

*Kept at St. Pancras, Camden Square, in the County of London,*

Lat. 51° 32' 20" N. Long. 0° 8' 10" W.

By DR. H. R. MILL.

RAIN GAUGE... { Diameter, 8 in.  
 Height of top above Ground, 9 in.  
 " " " Sea Level, 111 ft.

Date.	Jan.	Feb.	Mar.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Date.
	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	
1	·46	...	...	...	·10	·46	...	...	·02	·15	...	...	1
2	·01	...	·01	·01	·02	...	...	·35	·14	·03	...	·22	2
3	...	...	...	...	·19	...	·32	...	·11	·10	·01	...	3
4	...	·05	...	...	...	·03	·17	...	·16	...	...	·22	4
5	·01	·01	·16	·06	·01	·24	·01	...	·03	·34	...	...	5
6	...	...	...	·49	...	·02	·06	·04	·02	·05	...	·07	6
7	...	...	·05	·40	·28	·01	...	...	...	·02	·01	·39	7
8	...	·02	·02	·04	·27	...	·04	...	...	·10	·01	·06	8
9	...	·15	·13	·03	·01	·06	·04	·03	...	·05	...	·42	9
10	·18	·38	·03	·01	...	...	·42	...	...	·13	...	...	10
11	...	·02	...	...	...	·08	...	...	...	·03	...	·55	11
12	...	·21	·23	·35	·09	·02	...	...	...	...	·06	·72	12
13	...	·01	·07	...	·15	·17	...	...	...	...	...	·52	13
14	...	·01	·03	...	·02	·07	...	·50	...	·33	·01	·01	14
15	...	·02	·14	...	·02	·17	...	·06	...	...	...	...	15
16	...	...	·06	·12	...	...	...	·05	...	·31	...	...	16
17	...	·01	·02	·12	...	...	...	·40	...	·05	·13	...	17
18	...	·04	...	...	...	...	...	·02	...	·22	·49	·05	18
19	...	·24	·02	...	...	...	...	·02	...	·17	...	·01	19
20	·02	...	...	·14	·06	·01	...	·21	...	·02	...	...	20
21	...	...	...	·33	·01	...	·13	...	...	...	...	·02	21
22	...	...	...	...	·13	...	·61	·07	...	·04	·24	·33	22
23	...	...	...	...	·04	·01	...	...	...	·02	...	·17	23
24	·01	...	...	...	...	·15	...	...	...	...	·14	...	24
25	...	...	...	·38	·11	·03	·01	·04	·10	·02	·27	...	25
26	...	...	...	·34	...	·02	·04	·15	...	...	·48	...	26
27	·15	...	...	·03	...	·04	·02	...	...	...	·31	...	27
28	·06	...	...	·10	...	...	·02	...	...	·02	...	...	28
29	...	...	...	·03	...	·43	·04	...	...	·25	...	...	29
30	...	...	...	·24	·13	·01	·03	...	·04	·06	...	·03	30
31	...	...	...	...	·10	...	...	...	...	...	...	...	31
Totals	·90	1·17	·97	3·22	1·74	2·03	1·96	1·94	·62	2·51	2·16	3·79	Totals
Totals from Jan. 1	·90	2·07	3·04	6·26	8·00	10·03	11·99	13·93	14·55	17·06	19·22	23·01	Totals from Jan. 1
Rain Days	8	13	13	18	18	19	15	13	8	22	12	16	Total 175

Average of 50 years ..... 25·07 in.

## REGISTER OF RAINFALL IN 1907

*Kept at Penzance, Morrab Gardens, in the County of Cornwall,*

Lat. 50° 7' 0" N. Long. 5° 32' 12" W.

BY CHARLES H. BENN, Esq.

RAIN GAUGE... { Diameter, 5 in.  
 Height of top above Ground, 1 ft.  
 " " " " Sea Level, 55 ft.

Date.	Jan.	Feb.	Mar.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Date.
	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	
1	·41	...	...	...	·31	·02	·01	...	·17	·65	·13	...	1
2	·32	...	...	·26	·26	..	·34	·53	·02	·16	·62	·26	2
3	·01	...	...	·02	·15	·06	·05	·04	·06	·49	·07	·43	3
4	·04	·06	...	·01	·03	·41	·16	...	·27	·01	·67	·48	4
5	·07	...	·16	·46	·18	·01	...	...	·21	·14	...	·17	5
6	...	·02	·13	·23	·01	·09	...	·03	·07	·43	...	·10	6
7	·03	·26	·03	·04	·04	·01	...	...	·01	·03	·03	·81	7
8	·04	·27	·01	·16	·11	·04	·09	·06	...	·26	·33	·06	8
9	·01	·06	·01	·02	·19	·13	·01	·02	...	·50	·03	·20	9
10	·04	·12	·01	...	·18	·04	...	...	...	·06	·01	·30	10
11	...	·35	...	·16	·39	·50	...	·16	...	·05	·15	·27	11
12	·03	·26	·17	·80	·01	·10	...	·09	...	·27	·02	·05	12
13	·02	·01	·06	·36	...	·12	...	·08	...	·07	·01	·36	13
14	...	·13	·11	·02	·10	·16	...	·08	...	·29	·03	...	14
15	·02	·08	·02	...	·04	·04	...	·02	...	·02	...	·20	15
16	...	·01	·36	...	...	...	...	·13	...	2·13	·05	·03	16
17	...	·13	·08	...	...	...	...	·27	...	·52	·80	·09	17
18	...	·03	·06	·02	...	·04	...	·05	...	·02	·01	·15	18
19	...	·33	...	·01	...	...	...	...	...	·12	...	·07	19
20	·07	·15	...	·95	...	·01	...	...	...	·08	·02	·08	20
21	·38	·02	...	·10	·47	·03	...	...	...	·03	...	·13	21
22	·13	...	...	...	·10	·20	...	·09	...	·15	·44	·06	22
23	...	...	...	...	...	·19	·48	...	...	·22	·10	·02	23
24	...	...	...	...	...	·04	·03	...	...	·26	·72	·04	24
25	·01	...	...	·46	·04	·12	·02	...	·06	·46	·83	·27	25
26	·12	...	...	·49	...	·05	·15	·01	1·41	·01	·25	·01	26
27	·02	...	...	·06	...	·04	·22	...	·04	·36	·15	·10	27
28	·05	...	...	·02	...	...	·01	...	...	·06	·01	·25	28
29	·11	...	...	·16	·10	...	·03	...	...	·29	...	·01	29
30	·02	...	...	·03	·21	·05	...	...	·23	·08	...	·03	30
31	·02	...	...	...	·07	...	...	...	...	...	...	...	31
Totals	1·97	2·29	1·21	4·84	2·99	2·50	1·60	1·66	2·55	8·22	5·48	5·03	Totals
Total from Jan. 1	1·97	4·26	5·47	10·31	13·30	15·80	17·40	19·06	21·61	29·83	35·31	40·34	Total from Jan. 1
Rain Days	22	17	13	22	20	24	13	15	11	30	23	28	Total 238

Average of 14 years ..... 40·06 in.

REGISTER OF RAINFALL IN 1907

*Kept at North Cadbury Rectory, in the County of Somerset,*

Lat. 51° 2' 31" N. Long. 2° 31' 15" W.

BY REV. H. A. BOYS.

RAIN GAUGE... { Diameter, 8 in.  
Height of top above Ground, 1 ft. 3 in.  
" " " Sea Level, 256 ft.

Date.	Jan.	Feb.	Mar.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Date.
	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	
1	·12	...	...	...	·02	·03	...	...	·04	·27	·04	·02	1
2	·15	...	...	·18	·02	·01	·01	·25	·13	·04	...	·73	2
3	...	...	...	·03	·23	·01	·15	...	·14	...	·01	·02	3
4	...	...	...	...	·01	·05	·06	...	·18	...	·02	·88	4
5	·03	...	·14	·04	...	·15	·11	...	·09	·27	...	·05	5
6	·01	...	...	·59	·35	·05	·10	·18	·03	·39	...	·03	6
7	...	...	·03	·30	·01	·02	...	·02	...	...	·02	·45	7
8	...	·11	...	·09	·08	...	·03	·03	...	·31	·87	·22	8
9	...	·01	·10	·14	·13	·11	·01	·10	...	·32	·01	·25	9
10	·03	·05	·01	·01	...	...	·20	...	...	·44	·01	·04	10
11	·01	·18	...	·16	...	·56	...	·01	...	·03	...	·91	11
12	...	·16	·07	·53	...	·17	...	·01	...	·01	·01	·15	12
13	...	...	·01	·03	·15	·02	·07	·04	...	·27	...	·31	13
14	...	·11	·01	·01	·02	·10	·01	·03	...	·17	...	...	14
15	...	·06	...	...	...	·10	...	·10	...	·13	...	...	15
16	...	...	·14	·12	...	...	...	·02	...	·55	·01	·03	16
17	...	·01	·06	·08	·02	...	...	1·07	...	·02	·27	...	17
18	·01	...	·01	...	...	·03	...	·02	...	·33	·12	·18	18
19	...	·26	...	...	...	...	...	·25	...	·48	·01	·02	19
20	·03	·03	...	·66	...	·01	...	...	...	·17	·12	·04	20
21	·20	·03	...	·33	...	...	...	...	...	·06	...	·01	21
22	·04	...	...	...	·14	·03	·52	·02	...	·20	·48	·16	22
23	...	...	...	·04	·15	·26	...	...	...	·21	·05	·04	23
24	·01	·01	...	...	·07	·02	...	...	...	·01	·06	·12	24
25	...	...	...	·30	·04	·16	·11	...	...	·07	·52	...	25
26	·07	·01	...	·45	...	·19	·08	·01	...	...	·52	...	26
27	·03	...	...	·18	...	·11	·08	...	...	·01	·10	...	27
28	·03	...	...	·06	...	...	·15	...	...	·43	·01	...	28
29	·06	...	...	·17	...	·16	·08	...	·04	·62	...	...	29
30	...	...	...	·02	·13	·01	...	·12	...	...	...	·02	30
31	...	...	...	...	·01	...	·11	...	...	...	...	·03	31
Totals	·83	1·03	·58	4·52	1·58	2·36	1·88	2·28	·65	5·81	3·26	4·71	Totals
Totals from Jan. 1	·83	1·86	2·44	6·96	8·54	10·90	12·78	15·06	15·71	21·52	24·78	29·49	Totals from Jan. 1
Rain Days	15	13	10	23	17	23	17	17	7	25	20	23	Total 210

Average of 11 years..... 29·77 in.

## REGISTER OF RAINFALL IN 1907

*Kept at Worksop, Hodsock Priory, in the County of Nottinghamshire.*

Lat. 53° 21' 35" N. Long. 1° 6' 15" W.

BY COL. HENRY MELLISH, J.P.

RAIN GAUGE... { Diameter, 8 in.  
 Height of top above Ground, 1 ft.  
 " " " Sea Level, 56 ft.

Date.	Jan.	Feb.	Mar.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Date.
1	in. ·19	in. ...	in. ·05	in. ...	in. ·03	in. ·25	in. ·01	in. ...	in. ·04	in. ·08	in. ...	in. ...	1
2	·07	...	·01	·07	·09	·02	·01	·08	·09	...	...	·29	2
3	...	·03	...	·05	·09	·03	·05	...	...	·02	...	...	3
4	·01	·13	·01	·08	...	·06	·12	...	·17	...	·08	·13	4
5	...	·03	·02	·06	...	·10	...	...	...	...	·01	...	5
6	...	·01	·01	·18	·06	·02	·03	·02	...	·33	·19	·05	6
7	...	...	·05	...	·02	·03	...	·07	·02	...	·03	·19	7
8	...	·10	·01	...	...	...	·04	·25	...	...	·02	·07	8
9	·01	·01	·22	...	·04	...	·07	...	...	·47	...	·05	9
10	...	·12	·13	·20	·01	·09	·38	...	...	·29	...	·05	10
11	...	·12	...	...	·03	·53	...	·02	...	·11	·05	·17	11
12	...	·47	·05	·02	·01	·08	·01	...	...	·02	·21	·90	12
13	...	·01	·13	·37	·05	·03	·04	...	...	·13	...	·26	13
14	...	·04	·02	...	·19	·06	...	·77	...	·44	·08	·04	14
15	...	·01	·03	...	...	·21	·01	·03	...	...	...	...	15
16	...	...	·06	...	...	...	...	·04	...	2·05	·06	...	16
17	...	·01	...	...	...	...	...	...	...	·12	·03	·04	17
18	...	·11	·03	...	·01	·01	...	...	...	·08	...	·03	18
19	...	·21	·55	...	·06	...	...	·02	...	·11	·01	·03	19
20	·10	·05	...	·03	·07	·07	...	·30	...	·28	·06	·02	20
21	·03	...	...	·37	·03	...	·14	...	...	·03	·01	...	21
22	...	...	...	·01	·39	·25	...	·09	...	·08	·26	...	22
23	...	...	...	...	·43	·03	...	·01	...	...	·08	...	23
24	...	·01	...	·05	·43	·24	...	...	...	...	·24	·01	24
25	...	...	...	...	·01	·02	·17	...	...	·06	·05	...	25
26	...	...	...	...	·16	...	·04	...	·05	...	·40	·01	26
27	...	...	...	·06	·03	...	...	...	...	·01	...	·02	27
28	·18	...	...	·02	...	...	...	...	·01	...	·04	...	28
29	·16	...	...	...	...	·02	·06	·01	·04	·21	...	...	29
30	...	...	...	·13	·23	·01	·25	·01	·09	·27	...	·01	30
31	...	...	...	...	·44	...	...	...	...	·16	...	...	31
Totals	·75	1·47	1·38	1·70	2·91	2·16	1·43	1·72	·51	5·35	1·91	2·37	Totals
Total from Jan. 1	·75	2·22	3·60	5·30	8·21	10·37	11·80	13·52	14·03	19·38	21·29	23·66	Total from Jan. 1
Rain Days	8	17	16	15	23	21	16	14	8	21	19	19	Total 197

Average of 32 years..... 24·38 in.

REGISTER OF RAINFALL IN 1907

*Kept at Borrowdale, Seathwaite, in the County of Cumberland,*

Lat. 54° 29' 35" N. Long. 3° 10' 40" W.

FOR THE ROYAL METEOROLOGICAL SOCIETY.

RAIN GAUGE... { Diameter, 5 in.  
Height of top above Ground, 1 ft.  
" " " Sea Level, 423 ft.

Date.	Jan.	Feb.	Mar.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Date.
	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	
1	·98	...	·40	...	2·56	·28	...	·02	·86	·52	·06	...	1
2	·15	...	...	·59	·20	1·70	·11	·45	·54	1·00	...	·37	2
3	...	...	...	·40	1·00	·03	·15	·05	...	...	...	·81	3
4	·60	...	·25	...	·71	1·99	·10	·26	·26	·02	·03	1·30	4
5	·62	...	·22	·83	...	·80	·15	·25	·11	·45	...	·40	5
6	·09	...	·56	·92	·61	·35	·38	·48	·02	·46	...	·77	6
7	·05	...	1·60	·07	·20	1·10	1·18	1·98	...	·10	...	1·60	7
8	...	·55	·06	...	·21	·75	·39	·01	...	·02	·43	1·97	8
9	·36	·30	·23	...	·30	·40	·11	·20	...	·26	·15	·56	9
10	·26	·61	·20	...	1·30	·98	...	·25	...	·22	·13	·90	10
11	·13	·70	...	...	·31	·93	...	3·38	...	·66	1·32	·95	11
12	·31	·35	·60	...	·25	·55	·26	·21	...	2·73	1·11	...	12
13	·10	...	·43	...	...	·21	·06	·40	·01	1·03	·06	2·85	13
14	·12	·30	1·05	...	·15	·90	...	·85	...	·55	·60	·10	14
15	...	·91	1·70	...	...	·85	...	·68	·01	1·05	...	...	15
16	·15	2·45	4·25	...	...	·01	...	·47	·22	·10	1·00	·21	16
17	...	·23	·72	·01	...	·10	...	·15	...	·26	...	·10	17
18	...	·86	·28	...	...	·46	...	1·15	...	·87	...	·41	18
19	...	1·10	1·35	...	...	·33	...	·22	...	·16	·82	2·26	19
20	·02	·22	...	1·91	...	1·00	...	·15	...	2·06	...	2·16	20
21	·46	...	·20	...	·20	·48	·63	·05	...	·22	...	·95	21
22	...	...	...	·60	·07	·60	...	·41	...	1·00	1·56	·43	22
23	·01	...	...	·05	·11	1·15	...	...	...	·33	·90	...	23
24	...	·11	...	·12	·32	·48	·04	·20	...	·06	·20	·03	24
25	...	...	...	...	...	·19	...	1·14	...	·54	...	...	25
26	·02	...	...	...	·03	·11	·20	...	...	·08	1·10	...	26
27	·46	...	...	·31	·20	·23	...	...	...	...	1·75	...	27
28	1·00	...	...	·31	...	...	·20	...	...	...	·21	...	28
29	·12	...	...	·03	·10	·02	·32	·21	...	...	...	...	29
30	...	...	...	1·01	1·14	·06	...	...	...	...	...	...	30
31	...	...	...	...	·21	...	...	·03	...	·36	...	...	31
Totals	6·01	8·69	14·10	7·16	10·18	17·04	4·28	13·65	2·03	15·11	11·43	19·13	Totals
Total from Jan. 1	6·01	14·70	28·80	35·96	46·14	63·18	67·46	81·11	83·14	98·25	109·68	128·81	Total from Jan. 1
Rain Days	20	13	17	14	21	29	15	26	8	26	17	20	Total 226

Average of 27 years..... 129·40 in.

## REGISTER OF RAINFALL IN 1907

*Kept at Strata Florida, Hafod, in the County of Cardiganshire,*

Lat. 52° 20' 50" N. Long. 3° 49' 25" W.

BY T. J. WADDINGHAM, Esq.

RAIN GAUGE... { Diameter, 5½ in.  
 Height of top above Ground, 1 ft.  
 " " " Sea Level, 580 ft.

Date.	Jan.	Feb.	Mar.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Date.
	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	
1	...	...	·14	...	·52	·05	·07	...	·15	·12	·07	...	1
2	·18	...	...	·34	·04	·37	·10	·92	·57	·13	·01	·01	2
3	1·00	...	...	·44	·33	·01	·30	·15	·54	·02	·01	·67	3
4	·73	·09	...	...	...	·05	·31	...	·44	·02	·03	·12	4
5	·07	...	·12	·05	...	·41	·16	·08	·01	·23	...	1·02	5
6	·08	...	·41	·22	1·75	·55	·07	·10	·18	·65	...	·20	6
7	·40	...	·21	·31	·02	·05	·02	·40	·08	...	·03	·45	7
8	·04	·22	·03	·44	·09	·13	·37	·34	...	...	·33	·47	8
9	·15	...	·53	·17	·23	·42	·29	·43	...	·30	·02	·72	9
10	·06	·29	·05	·02	·11	·15	...	·54	...	·36	...	·77	10
11	·03	·23	...	...	·16	·36	...	·10	...	·31	·10	·52	11
12	·41	·50	·37	·62	·02	·54	...	...	...	·28	·13	·02	12
13	·06	...	·05	·02	...	·07	·15	...	...	·12	·02	·25	13
14	·35	·22	·22	...	...	·34	·01	1·28	...	·62	·15	·95	14
15	·18	·38	·40	...	...	·41	...	·03	...	·30	·01	·10	15
16	·05	·09	·41	·07	...	...	...	·24	·03	1·21	·30	...	16
17	·03	·08	·11	...	...	·06	...	·52	...	·06	·20	...	17
18	...	·40	...	...	...	·06	...	·18	...	·28	...	·08	18
19	...	·52	·09	...	...	·09	...	·44	...	·34	...	·12	19
20	·11	·17	...	·41	...	·41	...	·01	...	·23	...	·08	20
21	·45	·08	...	·13	·06	·06	·35	...	...	·50	...	·22	21
22	...	...	·15	·03	·03	·83	·48	·42	...	·20	...	·25	22
23	...	...	...	...	·06	·13	·01	·03	...	·01	·43	·25	23
24	...	...	...	...	...	·70	·62	...	...	·13	·33	...	24
25	...	...	...	...	·08	·59	·11	·21	...	·33	·76	·02	25
26	·28	...	...	...	...	·07	·17	·01	...	...	·52	...	26
27	...	...	...	·19	...	·06	·19	...	...	...	·58	...	27
28	·43	...	...	·47	...	...	·07	...	...	...	·66	...	28
29	·36	...	...	·22	·07	...	·68	·20	...	·54	·03	...	29
30	...	...	...	·13	...	·07	·01	·04	...	·80	...	...	30
31	...	...	...	...	·55	...	·01	·01	...	·01	...	...	31
Totals	5·45	3·27	3·29	4·28	4·12	7·04	4·55	6·68	2·00	8·10	4·72	7·29	Totals
Total from Jan. 1	5·45	8·72	12·01	16·29	20·41	27·45	32·00	38·68	40·68	48·78	53·50	60·79	Total from Jan. 1
Rain Days	21	13	15	18	16	27	22	23	8	26	21	21	Total 231

Average of 16 years..... 53·73 in.

REGISTER OF RAINFALL IN 1907

*Kept at Aberdeen, Cranford, in the County of Aberdeen,*

Lat. 57° 8' 45" N. Long. 2° 8' 0" W.

By DAVID McHARDY, Esq.

RAIN GAUGE... { Diameter, 5 in.  
Height of top above Ground, 1 ft.  
" " " Sea Level, 120 ft.

Date.	Jan.	Feb.	Mar.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Date.
	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	
1	·51	...	·02	...	·28	·42	·02	...	·15	·15	·16	·02	1
2	·28	...	...	·03	·06	·29	·20	·37	·43	...	...	·19	2
3	·25	...	...	·04	·05	·12	...	·01	...	...	·01	...	3
4	·06	·05	·01	·02	·09	·20	·03	...	·45	·09	...	·36	4
5	...	...	...	·24	...	·33	·25	·03	...	·09	·03	...	5
6	·03	...	·01	·01	·02	·03	·05	·17	·01	·71	...	·14	6
7	...	·06	·05	·13	·07	...	·43	...	...	·02	...	·34	7
8	...	·10	·11	...	·07	·02	·23	...	...	...	·17	·02	8
9	...	...	·20	·04	·15	·34	·03	...	...	1·48	·08	...	9
10	·05	·21	·21	·12	·06	...	...	·08	...	·23	·04	...	10
11	...	...	...	...	·02	...	·13	·04	·02	·02	...	...	11
12	·03	·36	·01	...	·01	·43	·03	·13	...	...	·10	...	12
13	...	·15	...	...	...	·03	...	·06	·06	·43	·01	1·07	13
14	·03	·08	·03	...	...	·04	...	·03	...	...	...	·03	14
15	...	...	...	...	·02	·04	...	·02	·04	·52	...	...	15
16	...	·11	·52	·04	·07	...	...	·25	...	...	·25	...	16
17	...	·03	·15	·03	·02	...	...	·03	...	1·47	...	·07	17
18	...	·07	...	...	·02	·06	...	·33	...	·22	...	...	18
19	...	·19	·06	...	·10	·02	...	·03	...	...	·02	·09	19
20	·04	·17	·03	·15	...	·27	...	...	...	·12	...	·83	20
21	·05	·13	·06	...	·90	·33	...	·06	·01	·04	...	·07	21
22	...	·13	·03	...	·20	·07	...	·08	...	·05	·67	...	22
23	...	·01	...	...	·42	·07	...	·03	...	·08	...	...	23
24	·06	·02	·03	...	·23	·21	...	·24	...	...	...	...	24
25	·09	...	...	·01	...	...	...	·20	...	...	·03	·05	25
26	...	...	...	·26	...	·22	·12	...	·02	·09	·77	·10	26
27	·02	...	...	·06	...	...	·14	·02	...	·04	...	·09	27
28	·16	...	...	·05	...	·13	·01	·12	...	·04	·15	·03	28
29	·19	...	...	·08	...	...	·12	...	...	·09	...	...	29
30	·03	...	...	·28	·53	·05	·02	...	·02	·03	...	·19	30
31	·01	...	...	...	·97	...	·07	·22	...	...	...	·08	31
Totals	1·89	1·87	1·53	1·59	4·36	3·72	1·88	2·55	1·21	6·01	2·49	3·77	Totals
Total from Jan. 1	1·89	3·76	5·29	6·88	11·24	14·96	16·84	19·39	20·60	26·61	29·10	32·87	Total from Jan. 1
Rain Days	17	16	16	17	22	22	16	22	10	21	14	18	Total 211

Average of 21 years..... 31·77 in.

## REGISTER OF RAINFALL IN 1907

*Kept at Loch Shiel, Glenfinnan, in the County of Inverness,*

Lat. 56° 52' 10" N. Long. 5° 26' 25" W.

BY COL. J. A. MACDONALD.

RAIN GAUGE... { Diameter, 5 in.  
 Height of top above Ground, 1 ft. 2 in.  
 " " " Sea Level, 50 ft.

Date.	Jan.	Feb.	Mar.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Date.
	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	
1	1·00	...	·28	·07	·12	·56	·03	...	·28	...	·02	·02	1
2	·30	...	·68	·28	·28	·06	·09	·24	·09	...	...	·31	2
3	·32	·86	1·06	...	·66	·02	·08	·14	·04	...	·09	·52	3
4	·24	1·09	·66	·95	...	·21	·16	·66	·10	·50	·07	2·00	4
5	·46	·58	·10	·06	·72	·06	·17	·52	·80	·36	...	·72	5
6	·34	·84	·52	·25	·10	·12	·04	·46	1·08	·04	...	·78	6
7	·10	·74	·06	...	·42	...	·44	·06	·72	·33	...	·68	7
8	·52	·38	·12	·06	1·24	·24	·05	·83	...	·40	·08	1·46	8
9	·66	·16	·50	...	·46	·87	·06	1·14	...	·06	·06	1·36	9
10	·82	·06	·04	...	...	·82	...	·41	·11	·25	1·92	1·31	10
11	1·00	·04	...	...	·06	·13	·19	·85	·02	·56	·42	·39	11
12	·52	·50	1·04	...	·04	·26	·81	·02	·06	·04	1·72	·32	12
13	·62	·25	·50	...	...	·11	·21	·35	·50	·02	·28	·26	13
14	·35	·12	·24	·05	...	...	...	·09	·17	·12	·45	...	14
15	·24	·16	·02	...	·02	·49	...	·02	·60	·08	·26	·18	15
16	·12	·02	·52	...	...	·86	...	·35	·01	...	1·14	·15	16
17	...	...	·56	·05	...	·52	...	·74	·14	...	·42	·38	17
18	...	...	·39	...	...	·41	...	·15	·04	·72	...	·32	18
19	...	·06	·45	·04	...	·32	...	·05	·06	·80	·86	·42	19
20	·31	·12	·44	·91	...	·02	...	·25	...	·05	·29	·60	20
21	...	·64	·03	·24	·37	·27	...	·30	...	·09	1·36	·12	21
22	...	·50	...	·46	·18	·09	...	·39	·05	·04	·42	...	22
23	·06	·56	·09	·64	·02	·48	...	...	·28	·13	·29	...	23
24	·10	·42	·29	·06	...	·34	...	1·49	·05	·11	·09	...	24
25	·12	·86	...	·23	...	·04	...	·31	...	·04	...	...	25
26	·26	·12	...	...	...	1·27	·55	·50	...	...	1·09	...	26
27	·66	·24	·03	·12	...	·42	·44	·32	...	...	·11	...	27
28	·56	1·17	...	·48	...	·48	·15	1·52	...	...	...	...	28
29	·22	...	·15	·21	·27	·08	·05	·28	...	...	...	...	29
30	·52	...	...	·52	·06	·05	·15	·49	...	...	...	...	30
31	...	...	...	...	·10	...	·04	·05	...	...	...	...	31
Totals	10·42	10·49	8·77	5·68	5·12	9·60	3·71	12·98	5·20	4·74	11·44	12·30	Total
Total from Jan. 1	10·42	20·91	29·68	35·36	40·48	50·08	53·79	66·77	71·97	76·71	88·15	100·45	To a rom Jan.
Rain Days	25	24	24	19	17	28	18	29	20	20	21	20	Total 265

Average of 40 years..... 106·41 in.



REGISTER OF RAINFALL IN 1907

*Kept at Miltown Malbay, in the County of Clare,*

Lat. 52° 51' N. Long. 9° 24' W.

By MICHAEL MOLOHAN, Esq.

RAIN GAUGE ... { Diameter, 5 in.  
Height of top above Ground, 1 ft.  
" " " Sea Level, 400 ft.

Date.	Jan.	Feb.	Mar.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Date.
	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	
1	·20	·22	...	...	·29	·01	...	·30	·25	·44	·42	·03	1
2	·08	·07	...	·10	·11	...	·53	·03	·02	·56	...	·28	2
3	·07	...	·01	·21	·04	·10	·11	·46	·41	·01	1·02	·54	3
4	·09	...	·14	·03	·01	·20	·08	·07	·72	·04	·01	·11	4
5	·05	·18	...	·43	·33	·12	·06	·06	·01	·12	...	·17	5
6	·04	·20	·18	·26	·18	·39	·07	·03	...	·15	...	·13	6
7	·10	·09	·07	·77	...	·10	·26	·27	...	·10	...	·38	7
8	·01	·39	·11	·04	·43	·07	·15	·30	...	·50	...	·05	8
9	·05	·07	·25	·02	·15	·11	...	·32	...	·04	...	·33	9
10	·13	·41	·04	·06	·14	·14	...	·28	·10	·78	·19	·04	10
11	·06	·91	·07	·04	...	·12	...	·53	·07	·22	·08	·13	11
12	·33	·10	·30	·05	·40	·01	·52	·15	·03	·10	·25	·25	12
13	·01	·31	·06	·07	...	·27	1·05	·03	·08	·50	·04	·10	13
14	...	·08	·12	·01	·05	·01	...	·58	·01	·01	·02	...	14
15	·01	·05	·70	...	...	·18	...	·52	·05	·55	·05	·20	15
16	...	·01	·58	...	...	...	...	·05	·01	...	·09	...	16
17	...	·07	·14	·01	...	·18	·01	·09	...	·28	·01	·40	17
18	...	·23	·10	·13	...	...	·03	·15	...	·32	...	·32	18
19	·09	·32	·12	·01	...	·40	·01	·04	...	·02	·20	·65	19
20	·01	·14	...	·13	...	...	...	...	...	·15	·04	·05	20
21	·10	...	·25	...	·05	·19	...	·08	...	·52	·36	·25	21
22	...	...	...	·02	...	·17	·01	·21	...	·54	·11	·01	22
23	...	...	...	·04	...	·33	...	·07	...	·04	·13	·03	23
24	·01	·11	...	·16	·11	·44	...	·20	...	·11	·59	·05	24
25	...	·02	·04	·06	·03	·13	·20	·09	1·15	...	·62	·07	25
26	·10	...	...	·09	...	·12	·02	·05	·21	·02	·07	·06	26
27	·04	...	...	·01	...	·12	...	·01	·01	·04	·25	·42	27
28	·30	·01	...	·07	·06	·10	·15	·62	...	·01	·02	...	28
29	·10	...	·06	·02	·19	...	·09	...	·01	...	...	...	29
30	·07	...	...	·05	·53	·01	...	·01	·02	·03	·02	·02	30
31	·20	...	...	...	·04	...	·03	·04	...	...	...	...	31
Totals	2·25	3·99	3·34	2·89	3·14	4·02	3·38	5·64	3·16	6·20	4·59	5·07	Totals
Total from Jan. 1	2·25	6·24	9·58	12·47	15·61	19·63	23·01	28·65	31·81	38·01	42·60	47·67	Total from Jan. 1
Rain Days	24	21	19	26	18	25	18	29	17	27	22	26	Total 272

Average of 33 years..... 45·25 in.

*f*



## RAINFALL AT THE ROYAL OBSERVATORY, GREENWICH.

Lat., 51° 28' 38" N.

Long., 0° 0' 0"

[Communicated by SIR W. H. M. CHRISTIE, K.C.B., D.Sc., F.R.S., &c.,  
Astronomer Royal.]

1907	No. of Rain Days.	MONTHLY AMOUNT OF RAIN COLLECTED IN EACH GAUGE.						
		Osler's Anemometer		On roof of Octagon Room.	On roof of Magnet House.	On roof of Photographic Thermometer Shed.	Gauges partly sunk in the Ground.	
		Self-registering Gauge.	Second Gauge.				In Magnetic Pavilion enclosure.	In Observatory Grounds.
Height above Ground } Height above Mean Sea Level. }	...	50ft. 8in.	50ft. 8in.	38ft. 4in.	21ft. 6in.	10ft. 0in.	5in.	5in.
	...	205ft.	205ft.	193ft.	176ft.	165ft.	155ft.	155ft.
January .....	10	in. 0·496	in. 0·505	in. 0·812	in. 0·817	in. 1·005	in. 1·087	in. 1·041
February .....	14	0·566	0·511	0·805	0·963	1·165	1·274	1·193
March .....	10	0·316	0·281	0·649	0·685	0·836	0·905	0·861
April .....	16	2·221	2·385	2·737	2·909	3·118	3·139	3·087
May .....	18	0·763	0·833	1·221	1·276	1·394	1·474	1·445
June .....	15	1·634	1·698	2·176	2·424	2·565	2·647	2·574
July .....	13	...	...	0·827	0·908	0·970	0·969	0·980
August .....	13	...	...	1·522	1·719	1·862	1·915	1·862
September .....	6	...	...	0·520	0·597	0·650	0·623	0·623
October .....	24	2·171	2·218	2·667	2·907	3·137	3·252	3·093
November .....	9	1·447	1·517	1·841	1·910	2·144	2·232	2·157
December .....	15	1·627	1·623	2·022	2·283	2·626	2·733	2·659
Yearly Sums. ...	163	...	...	17·799	19·398	21·472	22·250	21·575
No. of Gauge ...	...	1	2	3	4	5	6	7

The monthly record terminates at midnight on the last day of the month.

A rain day is considered to be one on which 0·005 in., or more, is collected in gauge No. 6.

Of the ground gauges 6 and 7, No. 6 is taken as *standard*, No. 7 is the old monthly gauge.

From July 9th to September 21st Gauges Nos. 1 and 2 were partially protected by scaffolding and platform erected for fitting and adjusting new springs to Anemometer.

## THE STAFF OF OBSERVERS.

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THIS is the last article written, because new records are received up to the moment of printing the General Table, and the spaces reserved for records which have not been received and about which the dispatch of three circulars and at least one special letter, have produced no information, have been left uncanceled, however faint the hope, until we can wait no longer. We said so much in our last volume on the importance of increasing the number of rainfall stations in the remoter parts of our islands, that we now merely refer to pp. 71-73 of *British Rainfall*, 1906, having nothing to add to or take from what was stated there. For the first time since 1901, the net increase of rainfall stations in the British Isles is less than 100 over the number of the previous year. In *British Rainfall*, 1906, we should have recorded the loss, permanent or temporary, of 237 records, and a gain or return to our pages of 400, making the net increase 163.\*

For 1907 we have 375 gains and 289 losses, showing a net gain of 86; but of the gains at least 49 are old records which for one cause or another were absent last year, and 81 of the losses are, we hope, only temporary. It would thus appear that we have to welcome 326 new returns and to deplore the loss of 208, which we are not likely to see continued

Compared even with the revised figures of 1906, the net gain in 1907 seems to show a rather serious falling off; but statistics of this sort are often capable of suggesting a more favourable point of view than that of first sight. It will be noticed that on this occasion 81 of the losses are only absent for temporary causes, as against about 40 last year. Many of these returns have been received but are imperfect, the fact of the imperfection having only been revealed by the exceptionally thorough criticism of the less satisfactory returns which we were able to make this year; whether we were too severe on this occasion or too lenient in former years we are not prepared to say, but we do not think that the Observers have slackened in their self-imposed work. The following comparison shows that taking account only of the new records received (ignoring the old ones returned) and

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\* These revised figures are made necessary by changes in the General Table after the enumeration the results of which were published last year had been made.

of the old records which have stopped permanently (ignoring those which we hope to print again next year) the real increase was only 27 less than in 1906.

	Total gains.	Returned.	Real gain.	Total loss.	Temporary.	Real loss.	Net real gain.
1906.....	400	58	342	237	40	197	145
1907.....	375	49	326	289	81	208	118

It must also be remembered that in 1906 one group of new records included 51 from the Derwent Valley Water Board, and that such a return to one letter of application never occurred before, and is scarcely likely ever to occur again. Thus from the point of view of mere numbers we have no reason to be dissatisfied. We have, however, long passed the stage at which mere numerical increase was a cause of congratulation; we would now gladly see the total number decreased, even by hundreds, if for every two gauges plucked up in places where they are thickly clustered one were planted in the waste places now totally unrepresented. Still the crowding of rain gauges in favoured districts enables us to discuss daily rainfall with the greater completeness, and we will continue to endeavour to improve distribution without diminishing numbers.

Considering the great divisions of the United Kingdom separately, and dealing now with the total number of gains and losses, we find that for England the gains number 275, the losses 211, leaving a net gain of 64, or an increase of 2 per cent. as compared with 1906; for Wales, 26 gains and 25 losses shows a net gain of 1, which is too small to express as a percentage, but it shows that there has been no falling off. For Scotland, there were 53 gains and 36 losses, a net gain of 17, or 3 per cent. on the number for 1906; while for Ireland the gain of 19 was almost counterbalanced by the loss of 17, the net increase of 2 being only 1 per cent. of the total. We note with pleasure that the increase in Scotland again shows the highest rate for there, perhaps even more than in Ireland, additional records are greatly wanted.

As usual in this section we devote a few pages to notes on various counties. Full information as to the stations from which records are not available this year, and those from which returns have been received again, or for the first time, is contained in the long list which follows.

Though there has been no serious loss to notice, London is by no means what it should be in respect of rain measurements, and although we are glad to include a new record from the borough of Paddington, we still regret that the metropolitan boroughs of Bethnal Green, Hammersmith and Southwark are unrepresented.

Both divisions of Surrey show a good excess of gains over losses, and the distribution has been distinctly improved. We are glad to have a new record on the North Downs, Walton-on-the-hill, 650 feet above sea level. Kent is less satisfactory, especially the eastern division, where, though the gains equal the losses in number, the distribution suffers, and the deterioration noticed last year continues. We are particularly sorry to lose Paddlesworth, near Hythe, which leaves only one station above 500 feet on the eastern extremity of the North Downs, where the highest rainfall of the county occurs. We greatly desire more records in this district. In the western part of the North Downs and on the Greensand Ridge, near Sevenoaks, we rejoice to welcome the gauge near Tatsfield, 730 feet, and at Crockham Hill, 705 feet, and also those at the reservoirs near Seal; these improve the representation of a very interesting region.

In Sussex the permanent losses are not very serious, while the gains include one important record in Te Whare, on the summit of Crowborough Hill, the full value of which should be more apparent next year.

In Hampshire the record at Selborne, over the advent of which the memory of Gilbert White made us almost sentimental last year, has failed, and that at Long Parish, which filled an important gap, has gone, though its place will be taken next year by a very serviceable substitute, secured by the good offices of a neighbouring Observer. Mr. C. J. P. Cave has added two new gauges at a considerable range of elevation to his former equipment, and the neighbourhood of Petersfield is also enriched by a record at Bordean House, at 550 feet. Another most interesting accession is Herriard Vicarage, in the north of the county, also at 550 feet. The very long record at Newbarn Cottage, Osborne, Isle of Wight, extending over half a century, has been stopped, and although a good substitute has been found in East Cowes, records of 50 years' duration are too rare to pass unregretted.

The neighbourhood of the north of London, in Middlesex, shows a marked improvement, the five new stations enabling us to trace the outline of the torrential rain of July 22nd much more exactly than would have been possible otherwise. The gauge at The Hollies, Mill Hill, is within a few hundred yards of the great cedars which are said to have been planted by Linnæus, when he visited his friend Collinson, a century and a half ago.

In Hertfordshire the changes have left a better distribution than

before ; but we are still in want of new stations in the central and eastern parts of the county, and should welcome a few more records sent monthly. Buckinghamshire is better than last year, for there has been no loss, and the Meteorological Office station at Beaconsfield is a decided acquisition. In Oxfordshire we are glad to find improvement, and Mr. Dines' station at Pyrton Hill, selected for its suitability for meteorological work with kites, together with the Meteorological Office station at Watlington Park, help greatly in drawing rainfall lines along the Chiltern Hills ; Charlbury, Little Tew and Wroxton supplement the existing stations in the west and north ; but we still deplore the desert area towards the east where gauges at Thame or Brill would be welcome. Northamptonshire has gone backwards ; its five losses include the much-valued record at Collyweston House, and there are only two gains. Once again the Huntingdonshire list remains unchanged, and Bedfordshire has gained four records and lost none.

We rejoiced last year over the record from Fyfield Truant School, which filled a horrid gap in Essex, but the Truants have disappointed us this year ; and we regret also the loss of the Bigods Hall record which stopped when the Countess of Warwick's School there was closed, for they have taken away from the least adequately supplied part of the county even such rain records as they had. Some compensation is afforded by the discovery of a rain record of some standing at Hassobury ; but we earnestly appeal to our readers to endeavour to induce any one living at Ongar or in the strip of country within five miles of the boundary between Essex and Hertfordshire to begin observations.

Suffolk and Norfolk hold their own, and there is special pleasure in noting that the new record at Kenninghall Council School fills a gap named as one of the worst in Norfolk in the very full statement of desirable sites for stations published with a "gap-map" in *British Rainfall*, 1905, p. 64. We trust that the numerous schools which have been equipped with rain gauges in Suffolk will find it possible to continue the records during the holidays ; the moral value of a record so kept, as an illustration of duty, may be put forward as a justification for the necessary trouble.

In Wiltshire, Wylve Rectory, over which we exulted last year, has failed to reappear, and the county has a worse tale to tell than any other, for while we are thankful for the addition of three new stations, we have lost eleven. We turn to Dorsetshire as a relief, for there

we have only to note four losses and as many as ten gains, largely on account of the energetic action of the Dorset Field Club ; but one of the most important is from an old Observer who has recently moved to Evershot, at the altitude of 600 feet, and, other things being equal, the higher the gauge above the sea the more valuable is the record it yields. We have made special exertions to improve the distribution in Devonshire, and the result is very satisfactory. There were 16 new records last year, there are now 19 more, many of them at most important places. Half-a-dozen are in positions which will throw light on the somewhat puzzling distribution of rainfall on the triangle of country south of the railway between Plymouth and Teignmouth, and three help to define the high rainfall of Dartmoor to the north ; these are Frenchbeare, Chagford (1040 feet), Cheriton Bishop and Spreyton. In Cornwall the most important accession is Tintagel, the centre of the worst gap in the county to which attention was specially called in 1905. The changes in Somerset are unusually numerous—we are especially sorry to lose Wellington ; but the gains on the whole more than make up for the losses and improve the distribution.

We have great pleasure in welcoming Miss Heberden as an Observer in Gloucestershire, as we believe she belongs to the fifth generation of rainfall observers in the Heberden family, the early association of which with rainfall work is described in *British Rainfall*, 1896, p. 32. We are sorry, however, to lose two records in East Gloucestershire and only gain one. As the source region of the Thames this portion of the county has a special interest and new records are much to be desired. The remainder of Division VI., except Warwickshire, shows a steady improvement. We are glad to have Church Stretton in the list once more, and this time it promises to be permanent.

The smallest county suffers by the loss of Tolethorpe Hall, and has no compensation. Lincolnshire shows some improvement, the most welcome records being those at Holbeach Marsh, which fills the great gap referred to in 1905, and Guthram, which takes the place of the long record at Pode Hole, the loss of which was deplored last year.

In Cheshire the losses are serious and the gains are few ; but Lancashire is far worse, no less than 18 records disappear, and only one of the four insertions is a new station. The most serious loss is Rufford near Ormskirk, where the record commenced in 1847, and gave one of the best averages available for the north of England.



It is deplorable that a record of more than 60 years should have been allowed to drop.

Yorkshire has improved considerably, especially in the north, where we have new records from Harrogate, five new gauges on the gathering grounds of the Leeds Corporation water works on Masham Moor; four new stations (including Bridlington, where there had been a bad gap) and no loss in the East Riding.

On the borders of Durham, Northumberland and Cumberland, Medomsley Manor House, 746 feet above the sea, Bellister Castle near Haltwhistle, and especially Alston, which fills a big gap, are most important accessions. The changes in the Lake District do not materially affect the number or the distribution of the gauges.

In Monmouth and Wales there has been a slight increase in the number of records, and several districts formerly poorly provided, have received important additions. Thus in the Black Mountains, Mr. Baker Gabb has started a record at Coed Dias in the Grwyne Fawr Valley, and in connection with a proposed scheme for water-supply, Mr. Baldwin Latham has set up several gauges, two of which are quoted. We happened to visit the quaint hotel which occupies the ruins of Llanthony Abbey and were attracted by four patches of solder on the side of the Snowdon funnel; the landlord on being applied to, explained that one of his guests had taken the gauge as a target for testing a rifle, and the bullet holes had been stopped up to fit it for its legitimate duties again.

In Breconshire several of the Observers have failed to send in returns, one observing in reply to a pressing letter, that he could not see how his observations could possibly be of any interest to anyone. In Radnor Forest a new record has been received from Glaslwyn at an elevation of 2170 feet, the highest rainfall station but one in Wales, and only exceeded in height above sea level in other parts of the British Isles by two gauges on the Talla Waterworks in Peebleshire. In Snowdonia, Mr. Gethin Jones has transferred most of his rain gauges to the North Wales Power Company, and Mr. Aitchison the manager of the Company has decided to continue and extend the records; one of the new stations at Llyn Llydaw, the record of which he has sent, had the highest rainfall measured in the British Isles in 1907.

The Isle of Man, and the Scilly and Channel Islands have not improved, but it is an important matter that they have not grown worse, there being practically no change.

In Scotland progress continues and the efforts of the Scottish

Meteorological Society through its energetic Secretary, Mr. A. Watt, are producing an encouraging result. The prospective value of water-power in Scotland is so great that we are surprised not to find more eagerness on the part of Highland proprietors to ascertain the potential value of their land in this respect. The fear of disturbing game on moors by carrying on observations is quite groundless, for game-keepers make first rate rainfall observers, and, we may add, no survey of natural resources can be effected so cheaply as the determination of rainfall.

A notable acquisition in the south of Scotland is the record at Castle O'er, in the heart of Eskdalemuir, one of the gaps referred to in 1905. The fact that observations had, all unknown to us, been carried on at this station for many years, gives a special value to the record, because it is in the close vicinity of the new Government Magnetic Observatory, set up here because of its remoteness from railways, where rainfall observations will no doubt be started, and after a few years' comparison the Castle O'er figures should enable a good average to be obtained.

Lord Rosebery's rain gauge at Dalmeny helps us to complete the rainfall lines round the Firth of Forth, one of those interesting strips of low rainfall between two belts of low hills. We are glad to receive two excellent records from the Island of Arran, both, it is true, from Brodick, but if we had our way all rainfall records would be in groups of two or three close together, and such groups uniformly distributed over the country. Brodick was one of the stations desiderated in 1905; we now hope that the interest will spread to the west and south of the island. Insular Argyll has been enriched by excellent new records in Islay, Jura, and Ulva. The small county of Kinross suffers by the loss of the two records at the north-west end of Loch Leven, and we wish that some more gauges could be established to throw light on the distribution of rain over the plain and hills which the county contains. The only change in Perthshire is the welcome return of Rannoch Station, none of the 33 stations of last year having failed.

The most marked improvement we have to note is in Aberdeenshire where there is no permanent loss, and, in addition to a most useful private record at Dyce, there is the gain of eight records kept for the Corporation of Aberdeen in the upper Dee valley. In west Inverness-shire two lighthouses have dropped out temporarily, but there are five interesting insertions. Hyskier Lighthouse has

recently been completed on a rocky islet 8 miles west of the Isle of Rum, and despite its exposed position the record seems to be sound. One of the old Skye records has come back and there is a new one at Dunvegan which justifies the general belief in the high rainfall of the island. On the mainland there are two new stations, one at Meoble, in Glen Meoble, a mile south of Loch Morar, the deepest freshwater lake in the British Isles; and the other in Glen Dessary, near the head of Loch Arkaig, which lies in the same east-and-west line as Loch Morar, parallel to Glenquoich. Both the new stations are in the wettest part of the West Highlands, with an average rainfall of about 100 inches, and it is most satisfactory to find how their readings for 1907 confirm the few records previously existing in these remote and rugged valleys. Other good accessions are the carefully kept record from Inverewe Gardens, Poolewe, in West Ross and Cromarty, and the return from Reay, in Caithness, a spot which has the personal interest of being associated in the mind of the Editor with his earliest recollection of any meteorological phenomenon—the hot dry summer of 1868.

We gave expression last year to our perplexity as to Mhaol, whence came a return of rainfall for the second time; on the previous occasion it bore no place-name at all. We hoped that 1907 would have the post-town added, but no return has been forthcoming. We have searched for Mhaol in vain; the *Oban Times* seconded our efforts last year without result, and now we fear that the place will be as hard to locate as Ticonderoga in Stevenson's grim ballad:—

Many a name I know,  
But never a name like this . . . .  
Names for the high and the low,  
The names of the craig and the flat;  
But in all the land of Scotland,  
Never a name like that.

When discovered it may be too late for publication.

In Ireland we still find with pleasure the old pertinacity in observing, and there is something to be proud of in the 20 counties which have not lost a single record published in 1906; but on the other hand in 19 counties there has been no new station added, and no less than 13 of the counties have combined both remarkable characteristics, and have neither a gain nor a loss to record. We are of opinion that a good many rainfall stations in Ireland remain

undiscovered, and we are sure that many new records would be started could we succeed in gaining access to the potential Observers.

Almost all the serious losses in Ireland to which we wish to refer leave us in doubt as to whether the Observer has removed or died, or some accident has befallen the gauge or record. The numerous circulars and letters have neither elicited a reply nor been returned by the Post Office as having failed to reach the addressee. We do not know, therefore, whether the gauges at Dromore Castle (Kerry), Murrisk Abbey (Mayo), Ardnaveigh (Antrim) and Baron's Court (Tyrone) have ceased to exist ; we only know that we could not get the records, and in consequence have had greater difficulty and less satisfaction in drawing rainfall maps of Ireland than in previous years. With regard to Tyrone, the little block—

Stewartstown (The Square)

Omagh (Edenfel)

Newtown Stewart (Baron's Court)

appeared unchanged as representing the rainfall of the county from 1897 to 1906, ten years ; they were all there amidst half-a-dozen others from 1896 back to 1892, five years more, and Tyrone had been one of the best represented counties in Ireland from the time of the Irish rainfall revival in 1874 ; but for 1907 we have no records, and this county disappears from our pages for the first time since it appeared in 1862, when all the Irish rain gauges were enumerated in half a page of print.

Donegal is better, and there are three new records to welcome, all of them in interesting and valuable situations.

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

Years.	England.	Wales.	Scotland.	Ireland.	Gross Total.	Increase over previous year.
1860...	163	5	—	—	168	—
1861...	334	9	109	20	472	—
1871...	1038	88	311	67	1504	—
1881...	1548	131	313	153	2145	—
1891...	2091	168	359	181	2799	23
1892...	2113	178	367	192	2850	51
1893...	2205	193	389	200	2987	137
1894...	2269	184	395	195	3043	56
1895...	2304	196	398	186	3084	41
1896...	2427	209	402	181	3219	135
1897...	2492	223	419	184	3318	99
1898...	2545	237	436	186	3404	86
1899...	2615	252	446	188	3501	97
1900...	2612	248	437	196	3493	—
1901...	2616	253	442	195	3506	13
1902...	2712	248	472	204	3636	130
1903...	2847	265	502	215	3829	193
1904...	2932	321	508	221	3982	153
1905...	3016	328	528	224	4096	114
1906...	3153	323	556	227	4259	163
1907...	3218	324	574	229	4345	86
Difference from 1906—						
Increase	65	1	18	2	86	—
Decrease	—	—	—	—	—	—

### Rainfall Records, Losses and Gains.

COUNTY.	RECORDS TERMINATED, OR <i>Absent.</i>	NEW RECORDS, OR <i>Old Ones</i> <i>Re-appearing.</i>
<i>London</i> (77)	Hampstead (Burrard Road). Shoreditch (City Road). <i>Battersea</i> ( <i>Water Works</i> ). <i>Camberwell</i> ( <i>E. Dulwich, Grove Vale</i> ) <i>Lewisham</i> , ( <i>Forest Hill Cemetery</i> )	Paddington (Harrow Road). Westminster (Commercial Road) Hampstead (Holmdale Road). ,, (Willoughby Road). Stoke Newington (Woodberry Down) Greenwich (Royal Obs.) No. 7. ,, (,,) No. 5. ,, (,,) No. 4. ,, (,,) No. 3.

<i>West Surrey</i> (78)	Chiddingfold (Pickhurst). Hambledon (Matteryes). Ewhurst (Heathside). Farnham (The Bourne Vicarage). Guildford (Kair, Epsom Road). Pirbright Camp. Camberley (Portesbery Hill).	<i>Haslemere (Jesses) 2nd gauge.</i> ,, (Clammer Hill). Churt (Furze Hills). <i>Oakwood Vicarage.</i> Witley (The Mount). <i>Bramley (Grafham Grange).</i> <i>Guildford (Wherwell Road).</i> ,, (Lansdown Ho., Merrow) ,, (The Grange, Merrow) Frimley Green (Hale Cottage).
<i>East Surrey</i> (101)	Kenley (Valley Road). <i>Banstead (Burgh Heath Res.) 2g.</i> Croydon (Duppas House). ,, (Brimstone Sew. Wks.). Thames Ditton (Weston Green).	<i>Reigate (Castle Grounds).</i> Redhill (Sid Court). Walton-on-the-Hill (Shirley). Banstead (Burgh Heath). Ashted (Barnet Wood Lane). ,, (Oakfield Road). Banstead (Basing House). Purley (Riddlesdown Rd.) <i>2nd g.</i> Sanderstead (Beechwood Road). <i>Sutton (Water Works).</i> Croydon (Park Hill House). Kew (Cumberland Gardens).
<i>West Kent</i> (110)	Goudhurst Vicarage. Paddock Wood (Moatlands). Edenbridge (Boon's Park) Aylesford (Preston Hall). Sevenoaks (The Rectory). Sidcup (Selborne Road). Beckenham (Wickham Road). Greenhithe. ,, (H.M.S. Worcester)	<i>Tenterden (Summerhill). 8 in. g.</i> Goudhurst (Brandfold). Tonbridge (Somerhill Est. Off). Edenbridge (Crockham Hill). Sevenoaks (Seal, St. Lawrence Res.) ,, (,, Oak Bank Res.) Lusted [Tatsfield]. Keston. Bickley (Sunnydene). <i>Bromley (Orchard Road).</i> ,, (Rodway Road). <i>Shortlands (The Gables).</i> <i>Sidcup (Station Road).</i>
<i>East Kent</i> (50)	Brookland. <i>Folkestone (Radnor Park).</i> Hythe (Paddlesworth). Ashford (Beavor Green). Eastry (Great Walton). Ramsgate (West Cliff Villas). Herne Bay (Eddington).	<i>Hythe (Sandling Park) No. 2 g.</i> Ashford (Oakwood). <i>Deal (Sewage Works).</i> <i>Tilmanstone (Dane field).</i> Canterbury (Sturry Road). ,, (St. Thomas' Hill). Whitstable (Tankerton). St. Peter's Court.
<i>West Sussex</i> (42)	Littlehampton (Surrey House). Worthing (New Parade). Horsham (Selehurst).	<i>Tillington (River House).</i>

<i>East Sussex</i> (91)	Hurstpierpoint (Highfield). Cuckfield (Workhouse). Crowborough (Steel Cross Ho.). <i>Forest Row</i> ( <i>Wych Cross</i> ).	West Dean. Brighton (Roedale). Lewes (Little Dean). Isfield Place, <i>3rd gauge</i> . Mayfield (Five Ashes). Crowborough (Te Whare). <i>Forest Row</i> ( <i>Charwood Farm</i> ).
<i>Hampshire</i> (127)	Ventnor (St. Boniface Road). Osborne (Newbarn Cottage). <i>Cowes</i> ( <i>Roy. Yacht Squadron</i> ). Tottor. (Tatchbury Manor). Selborne (Coneycroft). Long Parish. Basingstoke (Chapel Hill). <i>Eversley Rectory</i> .	Chale. Sandown (Free Library). Ryde (Thornton). East Cowes (Spring Hill). Bournemouth (West Cliff). ,, (Bodorgan House) Ringwood Vicarage. Southampton (Heathfield, Dibden). North Havant (Oaklands). Petersfield (Sunwood). ,, (Old Ditcham). ,, (Bordean House). Bentley (Marelands). Herriard Vicarage.
<i>Berkshire</i> (52)	Wantage (Ardington).	Newbury (Woodspeen). Bucklebury Place.
<i>Middlesex</i> (55)	Hornsey (High Street).	Willesden (Donnington Road). Tottenham. Finchley (Victoria Public Park) Mill Hill (Tennyson Road). ,, (The Hollies) <i>2 gauges</i> .
<i>Hertfordshire</i> (66)	<i>Eastbury</i> [ <i>Northwood</i> ]. Berkhampstead (Rose Cottage). ,, <i>2 gauges</i> . ,, (Fairhill). Welwyn (Datchworth Rectory).	Rickmansworth (Rivermead). Shenley (Kitwells). Cheshunt (Goff's Oak House). Ware (Grammar School for Girls) Bennington Lordship.
<i>Buckingham- shire</i> (36)	—	Horton (Crown Inn). Beaconsfield (Norfolk House).
<i>Oxfordshire</i> (54)	Henley-on-Thames (Henley Park)	Watlington Park. ,, (Pyrtton Hill). Charlbury (Wychwood House). <i>Chipping Norton</i> ( <i>Sarsden Gardens</i> ). Bicester (Ivy Cottage). Little Tew. Wroxton.

<i>Northamptonshire</i> (61)	Towcester (Paulerspury). Northampton (Kingsthorpe). Daventry (Welton). Hazelbeeck. Stamford (Collyweston House.)	Lilbourne. Marston Trussell.
<i>Huntingdonshire</i> (13)	—	—
<i>Bedfordshire</i> (31)	—	Luton (Tennyson Road). Shefford Hardwick. Cranfield School. Biggleswade (Waterworks).
<i>Cambridgeshire</i> (45)	Abington Pigotts. Carlton. <i>Stanground Sluice.</i>	Weston Colville. Cambridge (Harvey Road).
<i>Essex</i> (84)	Upminster Hall (2nd gauge). Fyfield (Truant School). Dunmow (Bigods Hall). Ardleigh (Hungerdown). Newport (Debden Rectory).	East Ham. <i>Clacton-on-Sea (Jay Wick).</i> Brightlingsea Hall. Kelvedon (White Barn). Braintree (Camoys). Hassobury [Bishop Stortford].
<i>Suffolk</i> (49)	<i>Polstead Rectory.</i> Lavenham Hall. Southwold. Burgh Castle Rectory.	<i>Ipswich (Belstead Hall).</i> Bucklesham School. Waldringfield Old Rectory. Wickham Market (Campsea Ash)
<i>Norfolk</i> (62)	Ellingham [Beccles]. Stalham (East Ruston Grange). Fakenham (Pensthorpe). Holt.	Kenninghall (Council School). Long Stratton (Gt. Moulton Rec.) Loddon (Langley Park). Aylsham (Rippon Hall). North Walsham (Empson House)
<i>Wiltshire</i> (50)	Broadchalk Vicarage. <i>Salisbury (London Road).</i> Wylde Rectory. Warminster (Downside). (Rock Villa). Marlborough (Preshute House). Calne (Compton Bassett). <i>Fatesbury.</i> Ramsbury (The Mead). Chippenham (Christian Malford). <i>Highworth (Hannington Hall).</i>	Downton (Wick House). Codford St. Mary (Stockton Ho.) Swindon (Burdorpe Park).



<i>Dorsetshire</i> (57)	Swanage (Worth Maltravers). <i>Wareham</i> ( <i>Stoborough</i> ). Wimborne (Park Homer). Winterbourne (Houghton).	East Lulworth Vicarage. Winterbourne Monckton Rectory Poole (Parkstone, Heatherlands) Bourne Valley [Bournemouth]. Wimborne (Broadstone). <i>Maiden Newton</i> ( <i>Cattistock Lodge</i> ). Wimborne (Stoneham). Evershot. Leigh Vicarage. Wimborne St. Giles (St. Giles Ho.)
<i>South Devon</i> (125)	<i>Plymouth</i> ( <i>Freedom Fields</i> ). <i>Ivybridge</i> ( <i>Blackadon Asylum</i> ). Teignmouth (Bitton Street). East Budleigh (Syon House). Exeter (Heavitree). <i>Crediton</i> ( <i>Newcombes</i> ).	Ermington (Thornham). Brixham (Lindthorpe). Torquay (Cockington Court). Totnes (Broadhempston). Teignmouth (Exeter Road). <i>Dawlish</i> ( <i>The Lawn</i> ). ,, (Thorns Reservoir). ,, (Burrows Reservoir). Chagford (Frenchbeare). Exeter (Ide). Cheriton Bishop. Brampford Speke (The Avenue Gdns.) Honiton (St. Cyrus). Chardstock Vicarage. Dunkeswell Abbey Vicarage.
<i>North Devon</i> (44)	Romansleigh Rectory. Ilfracombe.	Spreyton (Vicarage). Holsworthy (Dunsland). Dolton (Hilliers). <i>Barnstaple</i> ( <i>Arlington Ct.</i> ) No. 2
<i>Cornwall</i> (60)	Camborne. <i>Looe</i> ( <i>Railway Station</i> ). St. Mellion Rectory. Bodmin (Treledan). North Tamerton (Ogbeare Hall).	<i>Helston</i> ( <i>Tenderah</i> ). Penzance (Rosehill). St. Austell (Trevarthian). Tintagel (K. Arthur's Castle Hot.)
<i>South Somerset</i> (46)	Wellington (The Avenue). Milverton (Olands). Wincanton. Quantockshead (St. Audries Rec.) <i>Dunster</i> ( <i>Alcombe</i> ).	Henstridge (Inwood Ho. Gdns.) Taunton (Gatchell House). <i>Langport</i> ( <i>Huish Episcopi</i> ). Minehead (Mariansleigh).

<i>North Somerset</i> (73)	Glastonbury (Ivydene). <i>Cranmore (Southill House)</i> . Shepton Mallet (Sewage Farm). Axbridge (Winscombe Court). Hallatrow Court. Churchill (Springfield). Bath (Royal Institution). <i>Batheaston. 2nd gauge.</i> Flax Bourton (Tyntesfield). <i>Wrazall Rectory.</i> <i>Failand School [Bristol].</i>	Street (Hind Hayes). <i>Wells (Somerset &amp; Bath Asylum)</i> ,, (Wookey Hole). ,, (Hillgrove). ,, (Priddy). Burnham (Chalbury). Frome (Mells). East Harptree (Harptree Hill). Blagdon. ,, (Coombe Lodge). Nempnett (West Town). Bath (Crossways, Monkton Combe). Wrington (The Cottage). Bath (Charlcombe, Hamilton House). Clifton (Oakfield Road).
<i>West Gloucestershire</i> (73)	Fishponds (The Grove). Alderley. Amberley (Prairie Cottage). Gloucester (Hempsted). <i>Tewkesbury (Water Works).</i>	Frampton Cotterell (Park House) Almondsbury (Over Court Park) <i>2nd gauge.</i> Tortworth School. Dursley. Lydney. Stonehouse (Parklands) <i>No. 2 gauge.</i> <i>Gloucester (Denmark Road).</i> Charlton Kings (The Grange).
<i>East Gloucestershire</i> (19)	Moreton-in-Marsh (Longborough). Chipping Campden (Braithwaite Ho)	Lechlade (Claydon House).
<i>Herefordshire</i> (44)	Upton Bishop (The Baches). Lugwardine (The Laurels). Bromyard (Rowden Abbey) <i>2nd g.</i>	Whitchurch (The Tump). Kentchurch Rectory. <i>Fownhope (Morney Cross).</i> Hereford (Broadlands). Lugwardine (Hagley Pk. Gdns.) Whitney-on-Wye.
<i>Shropshire</i> (43)	<i>Bishop's Castle (Lydham Manor)</i> <i>Bridgnorth (Cantreyn Bank).</i> Market Drayton (Marley Mount)	Craven Arms (Stokesay Court). Hopesay Rectory. Church Stretton. Bridgnorth (Cantreyn). <i>Pontesbury (Somerville).</i>
<i>Staffordshire</i> (46)	Brocton (Brocton Lodge). Burton (Hamilton Road).	Church Eaton Rectory. Stoke-upon-Trent (Glebe Street) <i>Leek (Rudyard Reservoir).</i>
<i>Worcestershire</i> (49)	Persnore (Woollas Hall). Bromsgrove (Stoke Reformatory) ,, (Barnt Green).	Persnore (The Poplars). <i>Bewdley (Winterdyne). 2nd g.</i> Kidderminster (Honeybrook Ho.) <i>Northfield (Longbridge Place).</i> Sparkhill [Birmingham].

<i>Warwickshire</i> (30)	Shipston (Honington). Stratford-on-Avon (Atherstone-on-St'ur) Warwick (Hatton Vicarage). <i>Birmingham (Botanical Gdns.)</i>	<i>Ryton-on-Dunsmore (Ryton Ho.)</i>
<i>Leicestershire</i> (34)	Horninghold House. <i>float gauge.</i>	Market Harborough (Rose Hill) Leicester (Stoneygate Road). ,, (Anstey Pastures).
<i>Rutland</i> (5)	Tolethorpe Hall [Stamford].	—
<i>South Lincolnshire</i> (26)	Leadenham Rectory. Sleaford (Bloxholm Hall).	Bourne (Guthram). Holbeach Marsh (Somerset Ho.)
<i>North Lincolnshire</i> (44)	Caistor (Castlemount). <i>Brigg.</i>	Horncastle (Mareham-le-Fen). Spilsby (East Keal Rectory). ,, (Halton Holgate). Bucknall. Lincoln (Cottesford Place). Kirmond.
<i>Nottinghamshire</i> (61)	Nottingham (Talbot Street). ,, (Basford Hall). <i>Mansfield.</i> South Scarle Vicarage. <i>Ossington.</i> <i>Ollerton (Edwinstowe Hall).</i>	Nottingham (Wilford Hill Res.) Radcliffe-on-Trent (The Cliff Ho) Nottingham (Woodthorpe). Newark Castle Gardens. Mansfield (Berry Hill). Clipstone Waterworks. Retford (Grammar School). Worksop (Wigthorpe Hill).
<i>Derbyshire</i> (115)	<i>Derby (Duffield Road) 2nd g.</i> <i>Chesterfield (Linacre Res.) ,,</i> <i>Norton [Sheffield].</i>	Kirk Langley. <i>Breadsall Priory.</i> <i>Codnor (Cross Hill).</i> Matlock (Rockside). Bakewell (Catcliff). Derwent (Lockerbrook Farm).
<i>Cheshire</i> (64)	<i>Audlem Vicarage.</i> Congleton (Buglawton Vicarage) Chester (Parkgate Road). ,, (The Nurseries). Wilmslow (Poplar House). Thelwell (Millington House). Mottram (Hill End).	Chester (Sewerage Works). Eastham House. Wirral W.W. (Prenton). Cheadle (Adswood).
<i>South Lancashire</i> (101)	Aigburth (Holmfield) <i>old gauge.</i> Warrington (Training College). <i>Eccles (Worsley Old Hall).</i> Manchester (Moston). <i>Walsden (Broadhead).</i> Haslingden (Hazelwood).	Liverpool (Monument Pl.) <i>2nd g.</i> Rochdale (Fieldhead). ,,

<i>Central Lancashire</i> (69)	Horwich (Montcliffe). Ormskirk (Rufford). Nelson (Coldwell Reservoir). <i>Beaton Fell</i> ( <i>Barnsfold Res</i> ) 2nd g. <i>Foulridge</i> ( <i>Crag Nook Hill</i> ). <i>Clitheroe</i> ( <i>Low Moor</i> ).	—
<i>North Lancashire</i> (59)	<i>Kirkham</i> ( <i>Weeton</i> ). Lancaster (Brettargh House). Grange-over-Sands (Belmont). Newby Bridge (Backbarrow). <i>Hawkshead</i> ( <i>Black Fell</i> ).	Wyresdale (Abbeystead Gdns). <i>Coniston</i> ( <i>Water Park</i> ).
<i>Yorkshire,</i>		
<i>West Riding, Southern</i> (68)	—	<i>Tickhill</i> . Bolton-upon-Deerne. Doncaster (Hexthorpe Hall). Goole.
<i>West Riding, Central</i> (123)	<i>Wakefield</i> ( <i>Field Head</i> ). <i>Selby</i> . Bradford (Manningham Lodge). Leeds (Weetwood Res.) 2nd g. <i>Malham Tarn</i> . 2nd gauge.	Horbury (Highfields). Ardsley (Jaw Hill). Bradford (Duckworth Terrace). Keighley (Long Lee).
<i>West Riding, Northern</i> (112)	Otley (Danefield). York (Burton Croft). 2 gauges. <i>Slaidburn</i> ( <i>Cabin Hill</i> ). Ripon (South Lodge). Ingleton Vicarage.	Saxton Vicarage. Otley (Council Offices). Ilkley (Silverwell Cottage). Harrogate (Harlow Hill Res.) 2 gauges. „ (St. James' Park). Knaresborough (Water Tower). Settle (Giggleswick School). Masham Moor (Bracken Hill). „ „ (Thorney Grane). „ „ (Spruce Gill). „ „ (Black Brunt). „ „ (Brown Beck). Sedbergh (Croasdale Beck).
<i>East Riding</i> (27)	—	Birdsall Gardens. Bridlington. Rillington (Scampston Hall). Filey (Deepdene).
<i>North Riding</i> (58)	Easingwold (Marton Vicarage). Cowesby Hall. <i>Mickleton</i> ( <i>Lime Kiln Pasture</i> ) No. 2.	Thirsk (Mount St. John). 4th g. Muker (Gunnarside Lodge). Middleton Tyas.
<i>Durham</i> (43)	Darlington (Public Park). <i>Wolsingham</i> .	Chester-le-street (Biddick Hall). Medomsley (Manor House). Sunderland (Boldon Rectory).

<i>Northumberland</i> (52)	Newcastle (Clifton Road). ,, ( <i>Leazes Park</i> ). Ilderton (Lilburn Cottage) 2nd g.	Haltwhistle (Bellister Castle).
<i>Cumberland</i> (70)	<i>Wasdale Head Vicarage</i> . <i>Sprinkling Tarn</i> . Borrowdale (The Moraine). <i>Aspatria</i> (Brayton Hall). Silloth.	Calder Abbey. Camerton Vicarage. <i>Bassenthwaite (Mirehouse)</i> . Cockermouth (Isel Vicarage). Alston (Lowbyer Manor House).
<i>Westmorland</i> (44)	Milnthorpe (Beathwaite Levens) Kendal (Natland Vicarage). Ambleside. <i>Ullswater (Swarth Fell)</i> .	<i>Kendal (Ellergreen)</i> . Windermere (Brockhole). Ambleside (White Craggs). ,, (Rydal Farm).

## MONMOUTH, WALES AND THE ISLANDS:

<i>Monmouth</i> (32).	Llantilio Crossenny (Brynderi).	<i>Chepstow (Shirenewton Hall)</i> . Abertillery (Cwmtillery). Ebbw Vale (Iron Works). <i>Pandy (Trewyn)</i> . Grwyne Fawr (Coed Dias). ,, ,, (Ffwydd Fwthog). Llanthony Abbey.
<i>Glamorgan</i> (56)	Caerphilly (The Court House). <i>Llwynypia (Glyncornel)</i> . 2nd g.	<i>Pontypridd (The Reservoir)</i> . Porth (Cemetery Road). <i>Swansea (Le Mayals)</i> . Briton Ferry (Baglan House). Rhondda (Ferndale).
<i>Carmarthen</i> (9)	Llangynog (Coomb).	—
<i>Pembroke</i> (12)	Tenby (High Street).	Tenby (Bryn Hyfryd). Newport (Llwyngwair).
<i>Cardigan</i> (9)	—	Lampeter (Falcondale).
<i>Brecon</i> (55)	Torpantau Station. 2nd gauge. <i>Cantref Rctory</i> . 2 gauges. Tal-y-llyn. <i>Trecastle (Llywel Vicarage)</i> . Brecon (Pont ar Fran). ,, ( <i>Penoyre</i> ). Builth (Beulah).	<i>Taff Fechan (Neuadd Res.) No. 9</i> . Talgarth (Bell Street).
<i>Radnor</i> (15)	Llansaintfraid-in-Elvel (Hundred Ho.) Disserth Rectory.	Radnor Forest (Glaslwyn).
<i>Montgomery</i> (24)	—	<i>Meifod (Coed-y-Maen)</i> .
<i>Flint</i> (11)	—	—

<i>Denbigh</i> (31)	Llangollen (Plas-yn-Vivod). <i>Wrexham</i> ( <i>Cae Lhwyd Res</i> ). 2nd gauge.	Cerrig-y-Druidion (Garthmeilio) Llanrwst. Denbigh (Asylum).
<i>Merioneth</i> (10)	—	Dolgelly (Dr. Williams' School).
<i>Carnarvon</i> (31)	Dolwyddelan (Tynddol). <i>Snowdon</i> ( <i>Llydaw</i> ). ,, ( <i>Glaslyn</i> ). <i>Llanberis</i> ( <i>Pen-y-pass</i> ). Deganwy (Bod Gethin).	Snowdon (Lake Llydaw Intake) ,, (,, , Copper Mine)
<i>Anglesea</i> (8)	—	Bodedern (Pressaddfed).
<i>Isle of Man</i> (10)	—	—
<i>Isles of Scilly</i> (2)	—	—
<i>Jersey</i> (3)	—	—
<i>Guernsey</i> (4)	St. Martins (Oberland). St. Peter Port (Villa Carey). 2nd gauge)	—
<i>Alderney</i> (1)	—	—
<i>Sark</i> (1)	—	—
<i>Herm</i> (0)	<i>Harbour</i> .	—

## SCOTLAND.

<i>Wigtown</i> (9)	—	—
<i>Kirkcudbright</i> (18)	<i>Kirkbean</i> ( <i>Arbigland</i> ). Irongray (Drum Park).	<i>Kirkcudbright</i> ( <i>Balmae</i> ).
<i>Dumfries</i> (18)	—	Dalton (Kirkwood). Eskdale (Castle O'er).
<i>Roxburgh</i> (13)	<i>Jedburgh</i> ( <i>Ancrum Bridge</i> ). Lilliesleaf (Riddell House). ,, (,, Gardens).	Jedburgh (Ploughlands).
<i>Selkirk</i> (6)	—	—
<i>Peebles</i> (18)	<i>Peebles</i> ( <i>Swinton Bank</i> ) 2nd g.	Victoria Lodge (Edinburgh WW) 2nd gauge.
<i>Berwick</i> (8)	—	—

<i>Haddington</i> (11)	<i>Bass Rock.</i>	Garvald (Thorter Reservoir). Gosford House Gardens.
<i>Midlothian</i> (30)	—	<i>West Calder</i> ( <i>Addiewell</i> ).
<i>Linlithgow</i> (8)	Linlithgow (Nether Parkley).	<i>Uphall.</i> <i>Carribber Reservoir.</i> Dalmeny House.
<i>Lanark</i> (25)	<i>Biggar</i> ( <i>Shieldhill</i> ).	Busby (Thornton Hall).
<i>Ayr</i> (25)	<i>Barrhill</i> ( <i>Kildonan</i> ). <i>Ailsa Craig.</i> <i>Maybole</i> ( <i>Knockdon Glenhead</i> ). Dalry (Camphill).	<i>Saltcoats.</i> Kilwinning (Greenhead Filters). Dalry (Munnoch Reservoir). ,, ( <i>Caaf Reservoir</i> ).
<i>Renfrew</i> (32)	Kilmalcolm (Waterworks). ,, ( <i>St. Oswald's</i> ).	—
<i>Dumbarton</i> (12)	—	—
<i>Stirling</i> (31)	<i>Strathblane</i> ( <i>Craigbarnet</i> ). Kippen (Garden House).	Torrance (Glenorchard). Polmont (Vellore). Bannockburn (Auchenbowie).
<i>Bute</i> (7)	—	Arran (Brodict U. F. Manse). ,, (,, Strabane). Port Bannatyne (Ettrickdale).
<i>Argyll, Main-land</i> (36)	—	Kintyre (Glenreaddell Mains). ,, (Bunawa Cottage, Tarbert). Glenleven (Invercann).
<i>Argyll, Insular</i> (21)	<i>Mull</i> ( <i>Knock</i> ).	Islay (Tighcargaman, Port Ellen). Jura (Jura House). Mull (Ulva). <i>Sanda.</i>
<i>Clackmannan</i> (5)	—	Alloa W. W. (Gartmorn Res).
<i>Kinross</i> (2)	Kinross (Gellybank). ,, (House).	—
<i>Fife</i> (19)	<i>Inchkeith.</i> Dunfermline. Boarhills (Kenley Green).	Largo (Carlton). Crail (Cambo).
<i>Perth</i> (34)	—	<i>Rannoch Station.</i>
<i>Forfar</i> (35)	—	Forfar W.W. (Den of Ogil).
<i>Kincardine</i> (13)	—	Stonehaven (Mains of Cowie).

<i>Aberdeen</i> (26)	<i>Braemar (Glenclunie Lodge). Kinnairdhead.</i>	Braemar (Geldie Cottage). " (Derry Lodge). Beinn Breac. Ben Muich Dhui (Carn à Mhaim). Glen Gairn (Gairn Shiel Lodge). " " (Little Cullardoch). " " (Corndavon Lodge). Upper Don (Carn Cuilchathaidh). Dyce (Parkhill House). <i>Buchanness.</i>
<i>Banff</i> (6)	<i>Dufftown (Dullan Brae).</i>	—
<i>Elgin or Moray</i> (5)	Forres (Balnaferry). <i>Covesea Skerries.</i>	—
<i>Nairn</i> (5)	—	—
<i>West Inverness</i> (22)	<i>Rona. S. Uist (Ushenish).</i>	Hyskier. Loch Morar (Meoble Lodge). Glen Dessary. <i>Skye (Glendrynoch L. Harport).</i> " (Dunvegan).
<i>East Inverness</i> (14)	—	Glenleven (Cam Bridge).
<i>West Ross and Cromarty</i> (15)	<i>Ullapool (Drumruinie Lodge). Mhaol.</i>	Poolewe (Inverewe Gardens).
<i>East Ross and Cromarty</i> (10)	Contin (Kinnahaird). <i>Kildary (Tarbat House).</i>	—
<i>Sutherland</i> (8)	—	—
<i>Caithness</i> (9)	—	Reay (Sandside). <i>Stroma.</i>
<i>Orkney</i> (9)	<i>Auskerry.</i>	—
<i>Shetland</i> (9)	Sumburgh Head.	—

## IRELAND.

<i>Cork</i> (13)	Dunmanway (Carbery). Cork (Villa Franca). " (College Road).	Ballineen (Kilmeen Rectory). <i>Doneraile (Carker House).</i>
<i>Kerry</i> (9)	Kenmare (Dromore Castle).	Lough Caragh (Lickeen).



<i>Waterford</i> (11)	—	<i>Waterford</i> (Newtown).
<i>Tipperary</i> (9)	—	<i>Nenagh</i> (Traverstown),
<i>Limerick</i> (4)	<i>Adare Manor.</i>	<i>Limerick</i> (George Street).
<i>Clare</i> (10)	—	—
<i>Wexford</i> (9)	<i>New Ross</i> (Longraigue).	—
<i>Kilkenny</i> (6)	—	—
<i>Wicklow</i> (13)	—	<i>Greystones</i> (Consilla). <i>Bray</i> (Pembroke Lodge).
<i>Carlow</i> (3)	—	—
<i>Queens Co.</i> (4)	—	—
<i>Kings Co.</i> (5)	—	<i>Birr Castle.</i> <i>Victoria Lock</i> [ <i>Meelick</i> ].
<i>Kildare</i> (5)	—	—
<i>Dublin</i> (22)	<i>Killiney</i> (Palermo). <i>Kingstown</i> (Harbour Office).	<i>Blackrock</i> (Charleville). <i>Lambay Island</i> . <i>Skerries</i> (Milverton Hall).
<i>Meath</i> (6)	—	—
<i>Westmeath</i> (7)	<i>Athlone</i> (The Moorings).	<i>Coole</i> (Mayne Rectory).
<i>Louth</i> (4)	<i>Drogheda</i> (St. James').	—
<i>Longford</i> (4)	—	<i>Longford</i> .
<i>Galway</i> (10)	—	—
<i>Roscommon</i> (1)	—	—
<i>Mayo</i> (8)	<i>Westport</i> (Murrisk Abbey.)	—
<i>Sligo</i> (3)	<i>Ballysadare Bay</i> (Glen Lodge).	—
<i>Leitrim</i> (4)	—	<i>Mohill</i> (Drumkilla).
<i>Cavan</i> (4)	—	—
<i>Fermanagh</i> (2)	—	—
<i>Monaghan</i> (2)	—	—
<i>Armagh</i> (5)	—	—

<i>Down</i> (10)	<i>Warrenpoint</i> ( <i>Summer Hill</i> ).	Warrenpoint (The Manor House)
<i>Antrim</i> (16)	Antrim (Ardnaveigh).	—
<i>Londonderry</i> (6)	—	—
<i>Tyrone</i> (0)	Stewartstown (The Square). Omagh (Edenfel). Newtown Stewart (Baron's Court)	—
<i>Donegal</i> (15)	—	Killybegs (Faiafannan). Gweedore Hotel. Mulroy Gardens.

## OBITUARY.

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THOUGH the Obituary List has been kept open for a fortnight longer this year than last we are happy to find it shorter by 20 names, and though the deaths of some Observers who have not kept records in recent years may have escaped our notice, we do not think that there is any reason to suppose that the number is greater than in other years. We have been able to ascertain the ages of 38 out of the 69, a somewhat higher proportion than last year, and the mean age was 69 ; only three of the 39 were under 50.

Those who were over 80 years of age are mentioned below. There is only one nonagenarian, but his age (97) has rarely, if ever, been surpassed by a Rainfall Observer, long-lived as they notoriously are.

*Observers deceased in 1907-8, of 80 years of age or more.*

Rev. Angus Bethune.....	97 years.
Mr. W. H. Jones.....	86 „
Sir John Evans .....	84 „
Rt. Hon. J. A. Campbell.....	83 „
Rev. J. R. Turner.....	83 „
Dr. Alfred Brown .....	82 „
Mr. C. O. Eaton.....	80 „
Mr. Joshua Sing.....	80 „
Mr. Joseph Knight.....	80 „

Some exceptionally long records appear in the list of the Observers whom we have recently lost, after more than 30 years observing. Curiously enough the Obituary list does not contain the name of any Observer which appeared in the first volume of *British Rainfall* (that of 1860-61), but the observations of Mr. John Aitken, of Braemar, did appear under the name of Dr. Cameron, who was then responsible for them ; and those of Sir John Evans, at Nash Mills, were credited in that volume to Messrs. Dickinson. It is always a little difficult to deal with records which appear sometimes over one signature, and sometimes over another ; but to the best of our knowledge every record quoted below was either taken by the observer personally or under his supervision.

*Records of Thirty Years and upwards.*

NAME	LAST PLACE OF OBSERVATION.	
*Mr John Aitken.....	Braemar.....	52 years.
*Rev. Angus Bethune .....	Seaham Vicarage.....	42 „
*Col. L. M. Buchanan .....	Edenfel, Omagh.....	42 „
*Mr. P. F. S. Amery .....	Druid House, Ashburton..	39 „
*Mr. Amos Mitchell.....	Wolsingham .....	39 „
*Col. Rt. Hon. W. S. Kenyon-Slaney, M.P. ....	Hatton Grange, Shifnal....	37 „
Mr. Sidney Law.....	Kingsthorpe, Northampton	37 „
*Mr. Laurence Dalglish ....	Keavil, Fifeshire .....	36 „
*Mr. C. O. Eaton .....	Tolethorpe Hall, Stamford	35 „
*Mr. J. Capel Philips.....	Heath House, Stoke-on-Trent	35 „
Mr. J. Walker, .....	Dufftown .....	34 „
*Mr. T. Hutchings .....	Colwyn Bay.....	33 „
*Mr. A. Johnston .....	Stewartstown .....	33 „
*Mr. T. Forster Brown.....	Glyncorrwg, Glam.....	31 „
Mr. G. Henderson .....	Gellybank, Kinross .....	30 „
Mr. W. Elliott Lockhart ...	Cleghorn, Lanark.....	30 „
*Rev. T. W. Sidebotham....	The Bourne Vicarage, Farnham	30

Concerning some Observers we are able to present a few biographical notes, but of many whose names we should like to associate with such a token of respect, we have been able to learn no particulars. How far the lives of those whose one common interest was the measurement of rainfall lay one from another can be guessed from the following notes.

MR. JOHN AITKEN, whose record of rainfall at Braemar has appeared in our pages since 1865, was Agent of the Union Bank of Scotland at Braemar for many years. He died in April, 1908, at the age of about 70. In 1856 the late Prince Consort equipped a meteorological station at Braemar, 1114 feet above sea-level, and Mr. Aitken was appointed the first observer. He kept up the observations for half-a-century with keen and unvarying interest, and on completing half-a-century of observations in 1905 he received a letter of thanks and appreciation for his meteorological work from the King. Soon afterwards Mr. Aitken retired from active work, and the thermometers were sent to Balmoral, where observations are now being made, but he removed his rain gauge to his own garden, a few hundred yards from its former site, rather than break the long series of observations, and continued to take the record monthly until his death.

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\* Continuous record in one place.

I happened to be passing through Braemar on April 22nd, and called at the house to see if the rainfall observations had been continued since he took his last reading on March 1st. The receiver of the gauge was on the point of overflowing, but no one in the house could tell where the measuring glass was to be found. Relying on the methodical habits of the late Observer, I suggested that it was probably in some cupboard close to the door nearest the gauge, and on looking round the hall noticed on the table a model house with a little door bearing a brass plate inscribed "Mr. J. Aitken." I felt sure that this was the resting place of the glass, and on opening the door found it there in a niche evidently made for it.

Mr. Aitken's rainfall work alone should suffice to preserve his memory, for the value of this long record in so remote a situation cannot easily be exaggerated. His successor in the Bank is, we are happy to say, carrying on the observations on the original site.

The REV. ANGUS BETHUNE, Vicar of Seaham, died on May 24th, 1908, at the patriarchal age of 97. Though himself a clergyman of the Church of England for 67 years, he was a descendant of four generations of ministers of the Church of Scotland. He was born at Alness, in Ross-shire, and belonged, by descent, to the famous clan Munro. He studied at the University of Aberdeen, and graduated there as M.A. in 1833; was ordained in 1841, and was Curate of South Shields until 1845. He became Curate of Seaham Harbour in 1845, and Vicar of Seaham in 1859. His first rainfall record appears in our issue for 1865, and from his remarkable physique and perfect health, we cherished the hope that he would be the first centenarian Observer. How near he came to this may be judged from the fact that he conducted the services in his church until a fortnight before his death. In the course of his career he had served under seven Bishops of Durham.

REAR ADMIRAL HENRY CHARLES BIGGE, was born in 1847 and served in the Navy from 1860 to 1902, seeing active service off Alexandria in 1882, and in the Red Sea during the war in the Sudan, two years later. On his retirement, in 1902, he settled at Holybourne, Alton, Hampshire, and took much interest in the rainfall observations which he commenced in that year.

MR. CHARLES JOHN BROMHEAD, of The Close, Lincoln, became a Fellow of the Royal Meteorological Society 20 years ago, and reported the observations at his Climatological station to that Society,

and his rainfall records have appeared in our pages since 1888. Mr. Bromhead was mainly known to his townsmen by his devotion to philanthropic work, and in particular to the continuous exertions he made in connection with the Lincolnshire Deaf and Dumb Mission, to which he was attracted by the fact of his own deafness. The *Lincolnshire Echo*, in announcing his death, which occurred on July 13th, 1908, said :—"The work of the mission is largely educational, and Mr. Bromhead, at his own expense, sent numbers of afflicted children to school, where they have, in many instances, learned useful trades, while he later exerted his influence in the difficult task of endeavouring to secure for them situations after they had left school. Not a few deaf and dumb men and women in Lincolnshire have owed their education, training, and position in life largely to the interest of Mr. Bromhead, in whom they lose a friend indeed."

COLONEL LEWIS MANSERGH BUCHANAN, C.B., was for forty years one of the most enthusiastic and indefatigable of our correspondents, and his notes on the weather of the month at his home Edenfel, Omagh, were a model of terse descriptiveness. They appeared monthly in *Symons's Meteorological Magazine*, from February, 1873, until April, 1907. Colonel Buchanan was in the habit of cutting out the printed note each month, and pasting it in a book for reference. The tranquil occupations of his later years were, as is so often the case with Rainfall Observers, the sequel to a life of extraordinary interest and variety. Colonel Buchanan was born in 1836, and joined the Royal Tyrone Fusilier Militia in the exciting time of 1855. He volunteered with 80 men of that regiment for service in the Crimea in 1856, and immediately afterwards proceeded to India, where he went through the whole of the Mutiny campaign with the Connaught Rangers, and after his return to Ireland he rejoined his old militia regiment which he commanded as Colonel, from 1887 to 1897. Colonel Buchanan was fond of travelling, and it was quite a usual thing to receive his monthly report of the Edenfel observations at the last moment, bearing a continental postmark, as even when from home he had the instrumental readings sent to him and drafted the "notes" personally. He was the author of several books of travel, including one on Tibet, and one on Spain, and he also published a paper on the climate of Ulster.

THE RIGHT HON. J. A. CAMPBELL, M.P., whose long and fatal illness, latterly simultaneous with that of his younger brother, Sir

Henry Campbell-Bannerman, the late Prime Minister, touched the public mind so recently, was Member of Parliament for the Universities of Glasgow and Aberdeen for 26 years, after having spent 30 years as a merchant in the former city. Although not a showy politician he was one of those who habitually carried on a vast amount of public work, especially in connection with University and educational matters, and in the affairs of the Church of Scotland, of which for many years he was a member of the General Assembly. Mr. Campbell was a generous supporter of our work, and the rainfall record, from his estate at Stracathro, near Brechin, has always been greatly valued. He died on May 9th, 1908, at the age of 83.

MAJOR GENERAL APSLEY CHERRY-GARRARD, son of Mr. G. H. Cherry, of Denford, Berkshire, was born in 1832, joined the Army in 1855, and served through the whole of the Indian Mutiny, taking part in the relief of Lucknow, and he saw much active service in other parts of the world, including the Zulu war. He retired in 1887; but he had commenced to send in rainfall records in 1877 and continued to do so until 1898. After he ceased to observe he retained an interest in our work, and was a frequent correspondent.

MR. REUBEN ROBERT DAVIS, who kept records of rainfall at various residences during nearly 30 years, died at Downlands, Ringmer, at the age of 70, on February 10th, 1908. Anxious that the instruments with which he had observed for so long a time should not cease to be usefully employed, Mr. Davis, only a day or two before his death, made arrangements for presenting them to a new Observer, hoping thus to secure continuity in the observations.

SIR JOHN EVANS, K.C.B., F.R.S., was so varied in his interests, and so familiar to different sections of the public—as a man of business, a county magistrate, a geologist, an antiquarian, and an anthropologist, that no one could be surprised to learn that he also took a keen and practical interest in meteorology. He was a Fellow of the Royal Meteorological Society, and had served on its Council. The first return from his gauge at Nash Mills, Hemel Hempstead, appeared in the first volume of *British Rainfall* (1860-61), and when a few years ago he moved from his old home the record was kept on by Messrs. J. Dickinson & Co., the famous firm of papermakers, to which Sir John Evans belonged. Though born in 1823 his vigour was unimpaired until within a very short time of his death, and when

I met him last, about a year ago, he was enquiring as to the progress of the Rainfall Organization to which he had been a friend for more than 40 years. Sir John was Treasurer of the Royal Society for many years; he was one of the Trustees of the British Museum, President of the British Association on the occasion of the meeting at Toronto in 1897, and he had been President of the Geological Society, the Numismatic Society, the Society of Antiquaries, the Anthropological Institute, the Society of Chemical Industry, and the Egyptian Exploration Fund, as well as Chairman of the Society of Arts, and of the Lawes Agricultural Trust.

MR. THOMAS GRAHAM-FOSTER-PIGOTT, died after a very short illness from pneumonia on October 5th, 1907, at the early age of 41. He graduated at St. Peter's College, Cambridge, in 1888, and in the same year succeeded to the estate of Abington Pigotts, to the care of which he devoted himself, and he lived there with his mother. He was a keen cricketer and sportsman, a devoted student of natural history, and a great lover of animals.

MR. GEORGE HODSON, C.E., of Loughborough, whose death, in April, 1907, was recorded last year, had been a friend of Mr. Symons and of the Rainfall Organization for twenty years, and retained his interest in the work after the death of the founder. As the senior member of the firm of George and F. W. Hodson, he was largely employed in engineering works, relating to water supply, in many parts of England. Mr. Hodson rendered great services to his own town in securing for it, against considerable opposition, both internal and external, the magnificent Blackbrook watershed on the Charnwood Forest, which, when secured over 20 years ago, was too large for the needs of the population at that time, but he had the satisfaction, before his death, of seeing the completion of the large masonry dam which now impounds the water in a reservoir about a mile long for the use of the town and the neighbouring districts. Mr. Hodson was the author of many papers and pamphlets on water supply and a contributor to Humber's Water Supplies of Cities and Towns. To the end his work was his principal hobby, but for many years he was a regular member of the Quorn Hunt, and was also a keen motorist.

COLONEL THE RIGHT HON. W. S. KENYON-SLANEY, M.P., was born in India in 1847, and after being educated at Eton and Christchurch, Oxford, he joined the Grenadier Guards in 1867; after



reaching the rank of Colonel in 1883, he retired in 1888. He saw active service in the Egyptian campaign of 1882. In his youth Colonel Kenyon-Slaney had won fame as a cricketer and football player ; after his retirement from the Army he entered Parliament and took a prominent part in the debates on the Education Bill of 1902. In spite of his strenuous public career he found time to take a personal interest in the rainfall observations carried on at his seat, Hatton Grange, Shifnal.

MR. AMOS MITCHELL, who died on March 28th, 1908, aged 70, had the distinction of keeping a correct record of rainfall for 40 years at Wolsingham, in Durham, a locality where such a record is peculiarly important on account of the small number of Observers in the neighbourhood. He took much pleasure in the work, which he carried on until his eyesight began to fail, a year before his death. We are happy to know that his niece continues to keep up the observations, which thus form an appropriate monument of his long and valuable services.

SIR FREDERIC SAMUEL PHILIPSON PHILIPSON-STOW, Bart., of Blackdown, Fernhurst, who died on May 27th, 1908, at the age of 58, was the eldest son of Mr. F. Stow, of the Orange Free State, and he practised as a solicitor in South Africa. In 1869 he became connected with the beginning of diamond mining, and was the joint founder, with Mr. Cecil Rhodes, of the De Beers Diamond Company. He is said to have originated the idea of consolidating the South African Diamond Mines, and although we have no certain information on the subject, it may have been his interest in meteorology which led the De Beers Company to equip the meteorological observatory at Kenilworth, Kimberley, which, under the charge of Dr. J. R. Sutton, has so notably advanced our knowledge of the climate of South Africa. Sir Frederic, who was created a baronet in 1907, had been an Observer and supporter of the Rainfall Organization since 1896, and he was a Life Fellow of the Royal Meteorological Society.

MR. JAMES JULIAN ALLAN RILEY, youngest son of the late Mr. Thomas Riley, Lord of the Manor of Midgley, graduated at Cambridge, and lived at Ewood Hall, Mytholmroyd, with his mother. He occupied himself with the usual pursuits of a country gentleman, and in his tastes, as well as in age and education, his life was curiously parallel to that of Mr. Graham-Foster-Pigott. He died on November 19th, 1906, aged 42.

MR. J. WALKER, commenced to observe rainfall at Old Deer, Aberdeenshire, in 1871, and continued to do so there until 1898, afterwards resuming observations at Dufftown, Banffshire, in 1900, and continuing to make meteorological observations there until his death in 1905. His daughters were associated with him in his work and so thoroughly were they identified with it that there was no indication beyond a change of initial in the signature of the return to call our attention to the transition, and it was several years before we learned of the death of our old and much valued correspondent.

MR. JAMES WILSON, of Currygrane, Co. Longford, died in August, 1907, at the age of 75. He was an able agriculturist and was deeply interested in the problems of Irish land, and in the affairs of the Irish Church. He was a strong Unionist in politics, and took an active part in the press and on the platform, and was a leading member of the Irish Landowners' Convention. Though a strong and consistent party man his personal qualities were such that he was always popular with all classes of his neighbours.

DR. WILLIAM EDWARD WILSON, F.R.S., of Daramona, Streete, Co. Westmeath, died on March 6th, 1908, at the age of 57. On account of delicate health he was educated at home, but although he had never been at a university his attainments in Physics and Astronomy were of a high order, and were recognized by the degree of D.Sc., *honoris causa*, from the University of Dublin. At the age of 20 he equipped an astronomical observatory, and later he replaced this by another specially fitted for celestial photography in which art he excelled. He carried out several very important researches on the temperature of the sun and solar radiation, and he designed a new meteorological instrument, the radio-integrator, which was put on the market only a few months before his death, and the capabilities of which have not yet been fully tested.

*Observers Deceased to August 15th, 1908.*

Small capitals designate Observers with 30 years' records.

*AITKEN, JOHN .....	Braemar, Aberdeenshire.
AMERY, P. FABYAN S. ....	Druid House, Ashburton.
Awdry, Thomas.....	Fowler's Hill, Salisbury.
Becker, Rev. Anton Leopold	Ravenscar, Yorks.
Bendall, O. ....	Lawford, Essex.
*BETHUNE, REV. ANGUS .....	Seaham Vicarage, Durham.
*Bigge, Rear Admiral H. C. ..	Holybourne, Alton, Hants.
*Bromhead, Charles John.....	The Close, Lincoln.
Brown, Dr. Alfred.....	Summerlands, Heathfield, Sussex.
BROWN, T. FORSTER, C.E....	Glyncorrwg, Glam.
*BUCHANAN, COL. LEWIS	
MANSERGH, C.B. ....	Edenfel, Omagh, Co. Tyrone.
*Campbell, Rt. Hon. James	
A., L.L.D. ....	Stracathro, Brechin.
*Cherry-Garrard, Maj.-Gen.	
Apsley, C.B. ....	Lamer Park, Wheathampstead.
Cresswell, Oswald Ernest,	
J.P., D.L. ....	Morney Cross, Hereford.
Crewdson, W. Howard .....	Beathwaite, Levens, Westmorland.
Cufaude, F. ....	Acle, Norfolk.
Culley, Edward Hugh .....	Monmouth.
DALGLEISH, LAURENCE .....	Keavil, Fife.
Davis, Col. Howell ..	Greys Green, Henley-on-Thames.
*Davis, Reuben Robert.....	Ringmer, Lewes.
*EVANS, SIR JOHN, K.C.B.	
D.C.L., F.R.S. ....	Nash Mills, Hemel Hempstead.
EATON, C. ORMSTON .....	Tolethorpe Hall, Stamford
Falwasser, Ernest Bateman	Liss, Hants.
Farrah, John .....	Harrogate.
Giffen, Andrew .....	Campbeltown.
*Graham-Foster-Pigott,	
Thomas .....	Abington Pigotts, Cambs
Greaves, Charles Henry, M.D.	Stafford.
Hay, Major J. F. Dalrymple	Dunlop, Ayrshire.
HENDERSON, G. ....	Gellybank, Kinross.
Hogarth, William... ..	Upton Bishop, Herefordshire.
HUTCHINGS, THOMAS .....	Colwyn Bay.
Jackson, Dowager Lady ...	Brynderi, Abergavenny.
Johnston, A. ....	Ancrum Bridge, Jedburgh.
JOHNSTON, A. ....	Stewartstown, Co. Tyrone.
Jones, William Henry .....	Hooton Grange, Cheshire.
*KENYON-SLANEY, COL. RT.	
HON. W. S., M.P. ....	Hatton Grange, Shifnal.

\* See Biographical Note *ante*.

Kewley, Rev. William .....	Natland Vicarage, Kendal.
Knight, Joseph .....	Hartshill, Stoke-on-Trent.
LAW, SIDNEY .....	Kingsthorp, Northampton.
Lister, W. Venning, J.P. ...	Great Walton, Eastry, Kent,
LOCKHART, W. ELIOTT.....	Cleghorn, Lanark.
Macleod, Dr. Murdoch Donald.....	Beverley, Yorks.
Marsden, Rev. D. L. ..	Llandefaelog-fach Rectory, Brecon.
*MITCHELL, AMOS.....	Wolsingham, Co. Durham.
Morris, F. J., C.E. ....	Grantham,
Orr, Miss K. A. ....	Palermo, Killiney.
Owen, Rev. Philip Henry ...	Bickington Vicarage, Newton Abott.
Paget, Rt. Hon. Sir Richard Horner .....	Cranmore Hall, Somerset.
Perkins, F. Heineken.....	Sellindge, Kent.
PHILIPS, J. CAPEL .....	Heath House, Stoke-on-Trent.
*Philipson-Stow, Sir Frederic S. P., Bart. ....	Blackdown House, Sussex.
Power, Dr. J. Byrne .....	Kingstown, Dublin.
Puxley, Rev. Herbert Boyne Lavallin .....	Lletherllestry, Carmarthenshire.
Rashleigh, Rev. Stanhope....	Wickham, Hants.
Rees, Togarmah, C.E.....	Newport, Mon.
*Riley, James Julian Allan...	Ewood Hall, Mytholmroyd, Yorks.
SIDEBOTHAM, REV. THOMAS WILLIAM.....	The Bourne Vicarage, Farnham.
Sing, Joshua, J.P. ....	Kelton, Aigburth, Liverpool.
Sparkes, John Charles Lewis	Ewhurst, Surrey.
Spire, Joseph .....	Glastonbury.
Steward, W. C. ....	Great Yarmouth.
Stileman, Major R. C.....	The Friars, Winchelsea.
Turner, Rev. J. R. ....	Wroughton, Swindon.
Venables, Mrs. Lister .....	Llysdim, Breconshire.
*WALKER, J. ....	Dufftown, Banffshire.
White, R. H., C.E. ....	Leeds and Liverpool Canal, Liverpool.
*Wilson, James, D.L.....	Currygrane, Co. Longford.
*Wilson, W. E., D.Sc., F.R.S.	Daramona, Co. Westmeath.
Wood, T. Travers.....	Swansea.

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\* See Biographical Note *ante*.

**RAINFALL AND METEOROLOGY**  
**OF**  
**1907.**

## EXPLANATION.

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

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

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

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

# ON THE METEOROLOGY OF 1907,

With Notes on some of the Principal Phenomena.



## NOTES ON THE DAYS OF 1907.

These Notes should be read in conjunction with those on Heavy Rains in 1907.

### JANUARY.

1st.—*London* (I).

“Inquests were held at Stepney on the bodies of two men, two women, and six children, whose deaths had been brought about by the cold weather.”  
—*The Standard*.

—*Southampton* (II). Heavy S.W. gale.—*Swerford* (III). H, R, S, and fog, with high wind.—*Bolton* (VIII).

“After being closed since Christmas night owing to the snowstorm, the South Lancashire Tramways Company’s trams have been able to resume running throughout the section from Lowton, through Leigh, to Bolton. The six days’ stoppage caused great inconvenience, hundreds of miners and mill operatives having to walk miles to and from their work.”—*The Standard*.

—*Douglas* (XI). Violent S.W. gale at night.

1st and 2nd.—*Heathfield* (II). A wild, howling storm from S.

2nd.—*Sidcup* (II). H storm.—*Bolney* (II). TS, with H.—*Southampton* (II). H at 11.15 a.m., L at 8 p.m.—*Ely* (III). TS accompanied by H and L.—*Bulmer Lodge* (IV). Rapid thaw causing floods in the valleys.  
—*Lynmouth* (V). TS and L at 9 a.m. H later.—*North Cadbury Rectory* (V). TS at night.—*Nailsworth* (VI). TS with R, H and S.—*Dunmanway* (XX). T and L in evening.—*Waterford* (XX). S, T and L.

2nd and 3rd.—*Torpantau* (XI). TS, with S.—*Cork* (XX). T and L.

3rd.—*Ross* (VI). Wye in flood, being 11 ft. 3 in. above summer level.

4th.\*—*Cirencester* (VI). Solar-halo in afternoon. Faint mock suns.  
—*Hopesay* (VI). Large halo with two mock suns faintly shown from 2 to 4 p.m.—*Market Drayton* (VI).

“Our Market Drayton correspondent says Mr. William Boyden and the members of his family, residing at Chipnall Mill Farm, five miles from that

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\* See also *Met. Mag.*, February, 1907, p. 13.

town, have had the extraordinary experience of being snowed up since Christmas. So deep were the drifts in the neighbourhood that it was not until yesterday that any access to the residence was obtained. During the ten days' isolation, however, the beleaguered household suffered little inconvenience, as the farm contained a good stock of provisions for a siege. Mr. Boyden's chief grievance was that his supply of tobacco had run out."—*Daily Telegraph*, 5th January.

7th.—*Ashburton* (V). Thick valley fog.—*Gloucester* (VI). Thick fog.

8th.—*Castletown* (XIX). Beautiful low fringing aurora in evening.

10th.—*Epsom* (II). Aurora in N.W., from 9 to 9.30 p.m.

14th.—*Drumnadrochit* (XVIII). Aurora to N.

16th—20th.—*Ware* (III). Continuous fog.

17th.—*Tighnabruaich* (XV). Very slight earth tremor at 2 p.m.—*Lochgailhead* (XV). Earthquake at 2 p.m.—*Inveraray* (XV). Earthquake felt by many people at 1.45 p.m.

18th—21st.—*Gravesend* (II), *Epsom* (II), *Sulhampstead* (II), *Henley-on-Thames* (III), *Oxford* (III), *Northleach* (VI), *Ross* (VI), *Ashbourne* (VI), *Goldsborough Hall* (IX), *Hull* (IX), *Waterford* (XX). Dense fogs.

19th.—*Horsmonden* (II). Heavy R, with gusts of wind in the night which blew over the rain gauge.

22nd.\*—*Pewsey* (V). Thick yellow fog.—*North Cadbury Rectory* (V). Dense gloom at 1.30 p.m.—*Gloucester* (VI). Bitterly cold blizzard.—*Waterford* (XX). A curious darkness came on about 3 p.m. which gave the appearance of an eclipse more than anything else. It was surmised that it might be due to the approach of S, but it passed off in about half-an-hour and the sun shone.

23rd.\*—*Woburn* (III). Max. temp. only 25°.—*Meltham* (IX). Bar. (corr. and red.) 31.008 in.—*Aberdeen* (XVII). Corrected bar. at 10.15 a.m. 31.06 in., being the highest recorded for the British Isles, except 31.11 in., also at Aberdeen, on January 31st, 1902.

23rd and 24th.—*North Cadbury Rectory* (V). Colder than any day for at least 11 years.

24th.—*Totland Bay* (II). Coldest day for 12 years; min. temp. 20°·4.—*Ryde* (II). The edge of the sea was frozen for about 20 yards.—*Fordingbridge* (II). Bitterly cold, with E. wind. Temp. 18° at night.

25th.—*Bournemouth*, *Kempsey* (II). S measured 1½ in. on ground at 9 a.m., and was the heaviest fall for six years.

25th and 26th.—*Dunmanway* (XX). Skating indulged in, which is possible as a rule only once in 5 years.

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\* See also *Met. Mag.*, February, 1907, pp. 1, 12.



26th.\*—*Sandown* (II). Skating.—*Meltham* (IX). Fine halo.

26th and 27th.—*Fordingbridge* (II). Very cold, with night temp. 18° and 19°.

27th.—*Llanerchymedd* (XI). Two inches of S fell at 10 p.m.

27th and 28th.—*Drumnadrochit* (XVIII). S.W. gale, which un-roofed outhouses.

28th.—*Seathwaite* (X). Three inches of S fell.—*Stobo*, *Dawyck* (XIII). Storm of wind, rising to hurricane, with severe T and L.—*Drummore* (XIII). S storm, with T and L.—*Musselburgh* (XIII). TS, with H and high wind between 1 and 2 p.m.—*Glasgow* (XIV). A severe gale caused great destruction to property in Glasgow and district. Several houses and many chimneys were blown down.—*Tighnabruaich* (XV). T and L, with S.—*Lochgailhead* (XV). Heavy gale from S.W. to N.W.; H showers at night.—*Inveraray* (XV). T and L.—*Ballachulish* (XV). The most severe gale for many years.—*Doune* (XVI). Severe N.W. gale, with S.—*Watten* (XIX). The stormiest day of a stormy winter. Hurricane, with R, H and S.—*Lough Swilly* (XXIII). A hard wind was blowing from the S.W., with heavy R. Suddenly, at about 11.30 a.m., there came one vivid flash of L and one loud peal of T, and the wind went round with the "dramatic bang" to N.W., with a blizzard of H, sleet, and then S.

28th and 29th.—*Colmonell* (XIV). TSS, with L, S and H showers and very strong wind.

29th.—*Pitsford* (III). Violent S storm at 4.25 p.m., lasting about 10 minutes, during which it was very dark.—*Lynmouth* (V). Heavy H storm all day.—*Spilsby*, *Hagnaby Priory* (VII). Extraordinary darkness at 3.15 p.m., lasting 20 minutes. Intensely dark sky, so that out-of-doors it was not even possible to see trees close at hand. A little S fell in large flakes, but did not lie.—*Blackpool* (VIII). TS, accompanied by severe S squalls.—*Shipley* (IX). Three inches of S.—*Buchlyvie* (XV). Four inches of S during the night.—*Lochgailhead* (XV). Four inches of S.—*Belfast* (XXIII). Four inches of S.

30th.—*Tavistock*, *Whitchurch* (V). N.W. gale, with H and R early, and with S after 2 p.m. TS at 8.20 p.m.—*Moretonhampstead* (V). H and three-quarters inch of S.—*Buxton* (VII). S on ground 2½ inches deep.—*Pickering* (IX). Four inches of S.—*Blaenau Festiniog* (XI). Two and a-half inches of S.—*Aberdeen* (XVII). L at 5.30 p.m.

31st.—*Crowborough* (II). In the night S fell, which rolled up to balls of 1 inch or 1½ inch in diameter, possibly caused by the wind rolling the flakes together on the ground.

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\* See also *Met. Mag.*, February, 1907, p. 12.

## FEBRUARY.

2nd.—*Stroud* (VI). Beautiful aurora at 3 a.m.

4th.—*Bishops Castle Vicarage* (VI). At 10.15 p.m. a slight R or S cloud passed over the moon, producing an unusually clear and coloured corona of at least 8 rings coloured like the rainbow.—*Keswick* (X).

“Three nights of frost, varying from 14 to 22 degrees, have given us jet black ice from one end of Derwent Water to the other. To-day the surrounding hills looked like black basalt washed with winter foam. The sun was veiled, but the reflections of mountain and woodland were marvellous. One could not believe that the ice was not still water. Skaters are busy at the north end of the lake, but the frost has already exacted a sad toll. Two promising lads walking from Friars Crag to Lords Island went through the thin ice over a pool which the swans had left open, and were drowned.”

Canon Rawnsley in *The Times*.

8th.—Aurora was reported from the following places:—*Shepton Mallet* (V), *Llansaintfruid-in-Elvel* (XI), *Llanerchymedd* (XI).

9th.\*—Aurora at *Farnham* (II). Between 8.30 p.m. and midnight.—*Totland Bay* (II).—*Clanfield* (III). From 7 to 9.30 p.m.—*Woburn* (III).—*Ashburton* (V).—*Rousdon* (V).—*Whole of Cornwall* (V).—*Clifton* (VI).—*Ross* (VI). From 6.30 p.m. to midnight.—*Blaby* (VII).—*Grimsby* (VII).—*Burton* (VII).—*Macclesfield* (VIII).—*Liverpool* (VIII).—*Keswick* (X).—*Appleby* (X).—*Haverfordwest* (XI). Very fine from 7.30 p.m. to 2 a.m. on 10th. The colours were brightest between 8 and 10 p.m.—*Llandudno* (XI). From 7.30 to 11 p.m.—*Dumfries* (XII).—*Stobo* (XIII).—*Buchlyvie* (XV). From 9.30 to 11 p.m.—*Montrose* (XVI).—*Alford* (XVII). Beautiful colours, filling nearly the whole sky and lasting two hours.—*Drumnadrochit* (XVIII). A fine display, the finest appearance here for many years.—*Dunmanway* (XX).—*Cork* (XX).—*Waterford* (XX).—*Clongowes Wood* (XXI).—*Rathmines* (XXI).—*Moate* (XXI).—*Fanad* (XXIII).

10th.—*Sellindge* (II) and *Maidenhead* (II). Thick fog.

11th.—*Wrexham* (XI). Four inches of S.—*Mauchline* (XIV). Five inches of S on ground.

12th.—*Bishop's Castle* (VI). Three inches of S.

14th.—*Northleach* (VI). Thick fog.

18th.—*Watten* (XIX). Two to three inches of S fell.

18th—20th.—*Clanfield* (III). Terrific S.W. gale.

19th.—*Oving House* (III). Terrific wind from S.W.—*Grimsby* (VII). TS, with H, R and S.—*Burton-on-Stather* (VII). Severe storm with

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\* See also *Met. Mag.*, March, 1907, p. 34.

L at 10 p.m.—*Thornton Curtis* (VII). S.W. gale. TS at night.—*Macclesfield* (VIII). L and H at 9.30 p.m.—*Upper Midhope* (IX). T and L at 9.30 p.m.—*Hull* (IX). TS in evening accompanied by S, sleet and H, with high wind.—*Pickering* (IX). TS commenced about 9.30 p.m., lasting three-quarters of an hour.—*Wearhead* (X). Severe storm, with T and L.—*Medomsley* (X). TS, with S.—*Stamfordham* (X). S storm. Terrific gale of wind, with T and vivid L.

19th and 20th.—*Heathfield* (II). Terrific S.W. gale.—*Harpenden* (III). S. to S.W. gale caused some damage to property and uprooted trees in the neighbourhood.—*Thorney* (III). Gale in night blew down trees.—*Salisbury Plain* (V). Heavy S.W. gale.—*Douglas* (XI). Violent S.W. to N.W. gale, delaying the boat for 3 hours on 20th.

19th—21st.—*Rousdon* (V). Strong N.W. to N. gales often blowing nearly 50 miles per hour.

20th.—*Hedsor* (III). Severe gale from W.N.W.—*Swerford* (III). Two inches of S.—*Rendlesham Hall* (IV). Heavy N.W. gale caused considerable damage to trees.—*Lowestoft, Corton* (IV). Blizzard of S and sleet from 8.30 to 9 a.m.—*Chelford, Astle Hall* (VIII). Heavy gale from N.W., with sleet and S. Trees blown over.—*York* (IX).

“The Ouse presented a striking spectacle. At midnight on Tuesday, the 19th, the river was 3 ft. 5 in. above summer level, but the constant and ever-increasing torrent which began to pour down from the uplands—the catchment area of the Ouse and its tributaries represents 9,000 square miles—quickly had its effect. At 5 a.m. the record was 5 ft. above summer level, and up to 11 a.m. the river rose at the rate of six inches per hour, and reached its highest point at 3 p.m., when the official returns showed a height of 8 ft. 9 in. From that time the full flood from the source having reached its climax the height of the river remained stationary up till about 6 p.m.”—*Yorkshire Herald*.

*Prestatyn* (XI).

“The London and North-Western Railway Company experienced the greatest difficulty yesterday in maintaining its train service on the Welsh coast. The Irish boat express from Euston to Holyhead, drawn by two engines, reached Prestatyn, where the pick-up water troughs are laid, some half an hour late. Both drivers expected to obtain the necessary supplies here while running, but found the troughs empty. The gale was blowing the water out of the troughs as fast as it ran in, and the train, which is not timed to stop between Chester and Holyhead, had to draw up at Rhyl, where a quarter of an hour was spent in filling both tenders. The 2.55 train from Chester had a still more astonishing experience. It reached Abergele very late, and here the wind was so strong that it brought the train to an absolute standstill.”—*The Times*, 21st February.

*Drumnadrochit* (XVIII). Three and a half inches of S on ground.

20th—23rd.—*Buncrana* (XXIII). TS, with S, sleet and H, followed by keen frost.

28th.\*—*Christchurch, Winkton Lodge* (II) Lovely warm day and clear evening. The planet Mercury was visible.—Dense fog at *New Malden* (II), *Gloucester* (VI), *Worcester* (VI), *Chelford, Astle Hall* (VIII), *Hull* (IX).

### MARCH.

1st.—Thick fog at *Epsom* (II), *Maidenhead* (II), *Bere Regis* (V), *Ashburton* (V).

3rd.—Thick fog at *Epsom* (II), *Winslow* (III), *Southwold* (IV), *Launceston* (V).

5th.—Thick fog at *Epsom* (II), *Winslow* (III), *Bere Regis* (V).

9th.—*Thornton-le-Moor* (IX). One and a half inch of S.—*Pickering* (IX). Two and a quarter inches of S.—*Cardross* (XV). Seven and a half inches of S.—*Kilsyth* (XV). Six inches of S.—*Perth* (XVI). S 2 inches deep.—*Blair Atholl* (XVI). Five inches of S.

10th.—*Meltham* (IX). Aurora.—*Perth* (XVI). Four inches of S.

13th.—*Seathwaite* (X). TS, with S and H.—*Lamington* (XIV). About 4 inches of S.

16th.—*Broughton-in-Furness* (VIII). A violent gale from between S. and W., lasting most of the night.—*Wearhead* (X). Strongest W. wind known for many years.—*Monmouth* (XI).

“During a performance in a travelling theatre, the structure was blown down by the gale, with the result that one man was killed and many other persons were injured. The force of the wind swayed the roof and caused the proprietor to stop the performance and dismiss the audience. When about half the audience had left, the building was blown over.”—*The Times*.

*Haverfordwest* (XI). Heavy gale, during which a speed of 80 miles per hour was recorded at Goodwick.—*Aberystwyth* (XI).

“The promenade suffered serious damage. Huge seas swept against the promenade wall, flinging tons of shingle on to the road opposite Alexandra Hall, the residence for women students. A big gap was made in the sea wall, through which poured tons of rock and shingle used in packing. After the tide had gone down it was found that half the road had disappeared.”

*The Times*.

17th.—*Hampson-in-Ellel* (VIII). A great storm of wind in the night raised the tide to a higher level than has been reached for 50 years. All the low-lying land adjoining the river Lune and Morecambe Bay was flooded and great damage was done.—*Blaenau Festiniog* (XI). Heavy flood.

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\* See also *Met. Mag.*, April, 1907, p. 53 ; July, 1907, p. 112.

17th and 18th.—*Chelford, Astle Hall* (VIII). Heavy gale from between S.W. and W. Trees blown over.—*Ballingarry* (XX). Strong gale from midnight on 17th till 5 a.m. on 18th.

19th.—*Kilsyth* (XV). Two inches of S.—*Perth* (XVI). An inch and a-half of S during night.—*Blair Atholl* (XVI). Three inches of S.

20th.—*Tavistock* (V). Pink sun pillar 3° long in W. from 6.35 to 6.40 p.m.

21st.—*Tavistock* (V). Pink aurora from 7.45 to 8.10 p.m.—*Meltham* (IX). Aurora 8–9 p.m.—*Clongowes Wood* (XXI). Aurora.

25th and 26th.—*Colchester* (IV) and *Stoke Bishop* (VI). Thick fog.

26th and 27th.—*Hedsor* (III). Dense fog.

27th.—*Maidenhead* (II). Thick fog.

28th.—*Yatesbury* (V). Daily range of shade temp. of 36°, the largest ever observed here.

29th and 30th.—*Wallington* (II). Peacock and brimstone butterflies seen.

#### APRIL.

3rd.—*Thixendale* (IX). Heavy T in evening.

5th.—*Totland Bay* (II). Very fine solar halo.

6th.—*Caterham Valley* (II). Over 6 inches of S.—*Norwood* (II). S yielding .72 in. fell.—*Clanfield* (III). Heavy H storm accompanied by T and terrific squalls of wind from N.W.

6th and 7th.—*Ashtead* (II). Heavy H storm in night followed by S, which in the morning lay 3 inches deep.

7th.—*Abinger Hall* (II). Very heavy fall of S in the early morning. Trees suffered somewhat.—*Warlingham* (II). S fell between 2.30 and 9 a.m. to a depth of 6 inches.—*Blisworth* (III). TS with H at 5 p.m.

8th.—*Farnham* (II). T, L and H between 3 and 4 p.m.—*Oxford* (III). H fell at 1.30 p.m. in irregularly shaped pieces from  $\frac{1}{4}$  to  $\frac{1}{2}$  an inch in diameter, and nearly covered the ground for a few minutes. It was accompanied by one flash of L and a loud clap of T.—*Blisworth* (III). TS with H at 1.30 p.m.—*Stroud, Upfield* (VI). TS at 2 p.m., accompanied by heavy H.—*Cirencester* (VI). T, L and H at 2.30 p.m.—*Burton-on-Stather* (VII). In 75 minutes during the afternoon .67 in. of R fell.

10th.—*Haslemere* (II). TS from 3 to 6 p.m.—*Horsham* (II). T and sharp L in evening.—*Grayshot* (II). TS from 3.30 to 6 p.m.—*Ashburton, Druid House* (V). Severe T and L from noon to 4 p.m., during which time .71 in. of R fell. Vivid L with T and torrents of

R and H at 0.45 p.m. Black R fell at several places in the vicinity.—*Stoke Bishop* (VI). Thick fog in morning.—*Harescombe Grange* (VI). Heavy TS from 6 to 7 p.m., with H.—*Chelford, Astle Hall* (VIII). During the night 1.02 in. of R fell. H lay three inches deep on the ground in the early morning.

10th and 11th.—*Ashford* (II). Severe H storm.

11th.—*Epsom* (II). Heavy rolling T from between S.W. and W. from 3 to 4 p.m.

17th.—*Haslemere* (II). TS at 2 p.m.—*Heathfield* (II). Very oppressive inky darkness from 1 to 6 p.m.

26th.—*Fulham* (I). Foggy all the afternoon; at times quite black.

27th.—*Blisworth* (III). S at 5 p.m.—*Stoke Bishop* (VI). Extraordinary darkness during the afternoon, lights having to be lit at 2.40 p.m.—*Winchcombe* (VI). T, with intense darkness from 1.15 to 2 p.m., causing all work to be suspended.—*Cirencester* (VI). TS at 2 p.m. Remarkable gloom and dirty R.—*Cheltenham* (VI).

“The morning had been fine, but shortly after one o’clock a mass of black cloud came up from the north-east and gradually blotted out the whole sky to the horizon. The gloom became deeper and deeper until by half-past one it became impossible to distinguish objects at a short distance in the darkness. For a long time no rain fell. Then came a copious shower of half an hour’s duration, but without thunder or lightning. On Cleeve Hill, the favourite haunt of the golfers, which seemed to be at the centre of the storm area, the players caught in the deluge dared not seek their way to the clubhouse in the darkness for fear of stumbling into the quarries and natural bunkers which abound on these links. In the village labouring men took their midday meal by candle-light. In the town the electric trams had all their lights switched on, and cyclists were met trying to thread their way between the few travelling vehicles with the aid of lamps. The feathered world was seriously disturbed. The hour of complete darkness hushed the songbirds into stillness, and the first streaks of “dawn” early in the afternoon found the domestic fowls roosting in a conscientious effort to sleep.”—*Daily Telegraph*.

—*Farnborough (Warwick)* (VI). Storm of R and wind, with intense darkness lasting one hour. The R was quite black.—*Thixendale* (IX). T and H.—*Borrowdale, Keswick* (X). Earthquake shock at 5.53 p.m.—*Dumfries* (XII). S fell for 5 minutes in afternoon, followed by TS.—*Ballybrack* (XXI). TS, with H, L and .20 in. of R from 11.45 a.m. to noon.

29th.—*Lowestoft, Corton* (IV). H-storm, followed by heavy R from 0.30 to 1.30 p.m. It did not reach Lowestoft, 2 miles distant.

## MAY.

6th.—*Harescombe Grange* (VI). Heavy but short local TS about 5 p.m.—*Gogerddan* (XI). Storm from 5.50 to 8 p.m., with wind from W. Heavy T and 1.59 in. of R in the 24 hours.

7th.—*Edinburgh* (XIII). Thick fog.

8th.—*Thixendale* (IX). In five minutes, from 1.30 to 1.35 p.m., there fell .11 in. of R.

9th.—*Hanbury Hall* (VI). Short but very heavy TS at night.

11th.—*Haslemere* (II). Severe TS from 9.15 till 10 p.m.—*Epsom* (II). TS from 10.10 till 10.25 p.m., with a brilliant display of L, the flashes averaging 7 per minute.—*Maidenhead* (II). Heavy TS with continuous L from 9.30 to 10.50 p.m.—*Dudley* (VI).

“The weather was so intensely hot in the South Staffordshire and North Worcestershire districts that chain-makers and workers at forges left three hours before their appointed time, the thermometer registering nearly 90°. Such an extraordinary change caused some of the men to collapse. Workmen say they have never before had to knock off through heat in May.”

*Daily Telegraph.*

12th.—*St. Pancras, Camden Square* (I). Warmest day of the year. Shade max. 82°·3.

13th.—*Winslow* (III). Heavy R storm, causing a big flood.—*Swerford* (III). TS towards midnight. Tree struck by L.—*Mears Ashby* (III). Between 1 a.m. and 3 p.m. 2.30 in. of R fell.—*Waresley Park* (III). TS and heavy R, 1.18 in. falling within the 24 hours.—*Upton-on-Severn* (VI). TS in night.

13th and 14th.—*Blisworth* (III). In the 24 hours ending 8.30 p.m. 14th, 2.09 in. of R fell, causing large floods.—*Swerford* (III). About 11 p.m. on 13th a little L was seen, and at 0.45 a.m. T was heard and R was falling fast. The storm seemed to travel slowly as it was not until 1 a.m. that it reached its height, when for a quarter of an hour, at intervals of from one to three minutes, there were vivid flashes of L closely followed by long rolling peals of T, and then as slowly it died away, the last distant T being heard just after 2 a.m. The R, however, kept on until about mid-day. At Hook Norton, about two miles to the N.W., a range of buildings was set on fire by the L and burnt down. The wind was very high there during the height of the storm.—*Great Billing* (III). Between 10.30 p.m. on 13th and 6.30 p.m. on 14th, 2.67 in. of R fell.—*Hoar Cross* (VI). Incessant R for 24½ hours.—*Leamington* (VI). Between 9 p.m. on 13th and 9 a.m. on 14th, 2.11 in. of R fell.

17th.—*Llwynypia* (XI). Earth tremor of 2 or 3 seconds' duration at 3.15 p.m. Although somewhat severe, no damage was done.

19th.—*Pawston* (X). S.

20th.—*England generally* :—

“Over England the Whitsuntide of 1907 will certainly rank as one of the coldest on record. Within recent years the festival has been so well favoured in the matter of weather that one had almost forgotten the time when a run of bad seasons led to the use of the cheap sobriquet “Wet Monday.”—*The Times*.

*Warlingham* (II). Very cold night wrought much mischief in gardens.

21st.—*Hexham* (X). S.

23rd.—*Fettercairn, The Burn* (XVII). In about 8½ hours 2·46 in. of R fell.

24th.—*Hampstead* (I). TS from 8.30 to 11.30 p.m., with brilliant blue L.—*Holbeach Marsh* (IV).

“Thomas Cumberworth, a labourer, was killed whilst working in a field during a thunderstorm. The evidence showed that the man met with a remarkable death. At the time he was carrying a manure fork with steel prongs, and this, which he had on his shoulder, appeared to have acted as a conductor to the lightning, which entered the body at the neck and passed down to the feet. His clothes were torn off round the shoulders and body, and he was left nearly nude. The garments were scattered about a distance of 16 or 17 yards. His boots were rent to pieces, and both feet were injured, whilst a hole was made in the ground on which he was standing. A watch he was wearing was fused by the lightning, and the case was bent up in a very remarkable manner. Death was instantaneous. The companion who was with him, named Charles Pattison, appears also to have been struck by the same flash and stunned, but he recovered.”—*The Times*.

*Gainsborough* (VII). Severe TS. ; ·75 in. of R fell in 40 minutes.—

*Wigan* (VIII). During a TS the church of St. Michael and All Angels was struck by L for the second time.—*Arbroath* (XVI).

Heavy R gave rise to serious floods, making several streets impassable.—*Montrose* (XVI). In consequence of heavy R the sides of a cutting on the North British Railway slipped and blocked the line for two hours.

25th.—*Fulham* (I). T and L at night.—*Sellindge* (II). TS from 8 to 11 p.m.—*Dover* (II). Severe TS, with R and H at night.

25th and 26th.—*Northallerton* (IX) and *Patrington* (IX). Fog.

27th.—*Lough Swilly* (XXIII). Max. temp. 82°. This heat was of a very local character, as 5 miles away the max. was only 68°.

30th.—*Broughton-in-Furness* (VIII). Wettest day for 15 years, 2·81 in. of R being measured.



## JUNE.

1st.\*.—*Sevenoaks, Seal* (II). Between 11 a.m. and noon 1·03 in. of R fell, being the heaviest fall since 1894.—*Otford* (II). Between 10.30 and 11.45 a.m. .75 in. of R fell.—*Lambourn, Clarionville* (II). During heavy TS 1·50 in. of R fell from 1 to 5 p.m.—*Slough* (III). TS at 2 p.m. A tree on Mr. Slocock's farm at Upton, and one on Mr. Scott's farm at Langley were struck by L.—*Oxford, Banbury Road* (III). Severe TS commencing at about 4 p.m. The L was incessant and vivid, and the R and H were appalling. In 20 minutes 1·10 in. fell, and St. Giles and Banbury Road had water over the footway and up to the tram-lines most of the way. At one time the water stood level with a bank about 9 inches high on the lawn. Half an hour after the R had ceased H stones were still lying on the grass.

3rd.†.—*Farnham* (II). S fell for a few minutes between 11 a.m. and noon.—*Wigan* (VIII). Fierce gale: causing much damage to new foliage.

4th.—*Totland Bay* (II). Fog.—*Llansaintfraid-in-Elvel* (XI). An extraordinary quantity of a substance resembling sulphur was found on the surface of the rain water in a tub.

5th.—*Northleach* (VI). Thick fog.

6th.—*Hampstead* (I). Heavy TSS and .30 in. of R in 15 minutes.—*Blisworth* (III). Heavy TS, with H and R, at 3.30 p.m.—*Thixendale* (IX). Great darkness at noon.

9th.—*Tonbridge, Ingleside* (II). TS, with .75 in. of R in 35 minutes.—*Worthing* (II).

“Whilst four men were sheltering from a thunderstorm beneath a large elm at Goring, on the Worthing and Littlehampton road, the tree was struck by lightning. Two of the men, Sidney Charles Orchard (nineteen) and Frederick Bennett Wadey (twenty-two), were killed outright, being shockingly burnt, whilst their clothing was reduced to shreds. The other two men were both injured, one of them seriously.”

—*Liverpool, Knotty Ash* (VIII). During a severe TS 1·71 in. of R fell, causing floods.—*Kirkby Lonsdale, Casterton* (X). A severe TS commenced at about 4.45 p.m. and continued at intervals until 9.30 p.m. R fell at intervals till 10 p.m. In 1 hour 55 minutes 1·14 in. of R fell.—*Aberdeen* (XVII). Heavy TS at 10 p.m.

10th.—*Aberdeen* (XVII). Heavy TS at 2 a.m.—*Glen-na-Smoel* (XXI). At 6.15 p.m. .53 in. of R fell in 20 minutes.

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\* See also *Met. Mag.*, June, 1907, p. 90.

† See also *Met. Mag.*, June, 1907, p. 87; July, 1907, p. 111.

12th.—*Bridgwater* (V). A few flakes of S fell about 1 p.m.—*Lincluden House* (XII). Severe TS and heavy local H storm. H stones measuring  $\frac{3}{4}$  in. did tremendous damage to trees and fruit.

16th.—*St. Pancras, Camden Square* (I). Highest sunshine record of the year; duration 12.5 hours.

20th.—*Rathmines* (XXI). Intense gloom in afternoon. More like November than June.

21st.—*Seathwaite* (X). What was presumed to be an earthquake shock was distinctly felt at 7 p.m.

23rd.—*Moyallon* (XXIII). Severe H storm destroyed fruit and flowers. The H entirely covered the ground and lay unmelted for some hours.

24th.—*London* (I).

“A Kilburn umbrella-maker sued at the Marylebone County Court, said the weather had been dead against him this season, and had ‘ruined his business.’ The Judge gazed thoughtfully at the skylight, on which the rain was at that moment pattering, and made an order for 13s. payment.”—*Tribune*.

—*Hampson-in-Ellel* (VIII). Midsummer-day: temp. fell to 36°.—*Harrogate* (IX). Slight fall of S in the evening.—*Inveraray* (XV). S on hills.

25th.—*Ashburton* (V). Fog and R all day.

25th and 26th.—*Wharfedale, Oughtershaw Hall* (IX). S storm occurred in the night and covered the hills.

26th.—*Llanerchymedd* (XI). Earthquake shock at 9.10 a.m.

27th.\*—*North Cadbury* (V). Dense fog on hills, and gloom.—*Wolstaston* (VI). A slight earthquake shock caused a stoppage in the village water supply.—*Swansea* (XI). Slight earthquake shock which seemed to give a rolling motion to the ground, accompanied by a sound like wind blowing from S.—*Inveraray* (XV). Heavy H showers.

29th.†—*Hampstead* (I). Heavy TS from 3.45 to 7.30 p.m., with loud T.—*Erith, Crossness* (II). One man killed and three injured by L on the marshes.—*Maidenhead* (II). Heavy TS from 4 to 7.30 p.m.—*Watford* (III). TS commenced at 2.30 p.m. About 4.15 p.m. a man was killed by L at Rickmansworth while holding up a fork full of hay to protect himself from the R.—*Kelvedon* (IV). At 0.45 p.m. a whirlwind of a local character blew 12 panes out of the roof of a greenhouse, and uprooted vegetables.—*Sturminster Marshall* (V). Storm, with a few very large H stones at 2.15 p.m.—*Gillingham* (V).

\* See also *Met. Mag.*, July, 1907, p. 111.

† See also *Met. Mag.*, August, 1907, p. 134.

Heavy TS, with H stones as large as hazel nuts, lasting from 3.10 to 4.40 p.m.—*Liverpool* (VIII). Between 1 and 2.15 p.m. .90 in. of R fell. Floods in parts.—*Bolton Percy* (IX). In 31 minutes .43 in. of R fell.—*Thixendale* (IX). TS. Tree struck by L.—*Llanfrehfa Grange* (XI). A violent flash of L, like a fireball, about 1 mile W., at 2.30 p.m. A cottage was struck.—*Glasgow* (XIV).

“ While four professional golfers were playing an exhibition game over the Lethamhill golf course, near Glasgow, two of their number were struck by lightning. Mr. George Harvie was killed outright, and his partner, named Stevenson, was rendered unconscious. Harvie's clothes, including his boots, were stripped off, his head was badly smashed, and his gums were rendered toothless. A hole 3 ft. deep was made in the ground at the spot.”—*Daily Telegraph*.

30th.—*Truro, Killiow* (V). Heavy TS from 1 to 4.30 p.m., during which .77 in. of R fell.—*Mansfield* (VII). TS accompanied by much H which did considerable damage to vegetation. It fell at 1.30 p.m. and some was left at 9 p.m.—*Goldsborough Hall* (IX). Shade min. 29°.

## JULY.

2nd.—*Pyecombe* (II). L set furze on fire on the golf links.

3rd.—*Goring* (III). TS. House struck by L in village.—*Cheswardine* (VI).

“ At Mr. Edward Belcher's house at Litley strange effects were produced by a whirlwind. In the rickyard the top of a large haystack was torn right off, and two of the numerous chicken pens in the poultry run adjoining were lifted fully 30 ft. high and carried in the air for nearly 500 ft. They were a curious sight as they were whirled round each other in the air. When they struck the earth again they were smashed to matchwood. So strong was the wind that it twisted a heavy hay waggon right round, and a pond was half emptied of its water, which was lifted up and sprayed about.”—*Manchester Guardian*.

4th.—*Long Ashton* (V). Heavy TS lasting 20 minutes, with H stones as large as peas.—*Cirencester* (VI). Sharp TS, with large H stones at 4 p.m.—*Wigan* (VIII). Three bad TSS, fortunately brief, at 0.30 p.m., at 2 p.m. and at 4.30 p.m.

10th.\*—*Hampstead* (I). At 10.30 a.m., during a TS, a fireball was seen. It appeared about the size of a tennis ball and of a bright fiery colour. It came down from left to right at an angle of about 70° to the horizon, accompanied by a flash of sheet L. There was tremendous T about a minute and a half before, and about 3 seconds after. Heavy R and H were falling at the time.—*St. Pancras, Camden*

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\* See also *Met. Mag.*, August, 1907, p. 130.

*Square* (I). Smart TS from 10.40 a.m. till noon, with drop of  $14^{\circ}$  in temp.—*Rumwood, Langley* (II). Two heavy H storms of 7 and 10 minutes duration occurred, with T.—*Serenoaks, River Hill* (II). H fell for 10 minutes amounting to  $\cdot 18$  in.—*Colchester, Lexden* (IV). Severe TS, with heavy R and H, injuring vegetation;  $1\cdot 30$  in. fell in about 95 minutes.—*Rendlesham Hall* (IV). Heavy TS from N.E., with H and  $1\cdot 55$  in. of R.

13th.—*Broadford* (XX). R and fog all day.

16th.—*Llanerchymedd* (XI). Thick fog.

18th.—*Ardnadam* (XV). Fog. Cloch lighthouse foghorn sounded.

19th.\*—*Banbridge, Milltown* (XXIII). TS, with H stones weighing more than one ounce each, and 6 in. in circumference.

21st.\*—*Shrewton* (V). Heavy TS in afternoon, with  $\cdot 98$  in. of R, the bulk of which fell between 5.16 and 5.44 p.m. Dark as night from 5 to 6 p.m.—*Market Lavington* (V). TS of remarkable severity at 5 p.m. It was almost dark and  $2\cdot 55$  in. of R fell in about  $1\frac{1}{2}$  hours.—*Pewsey* (V). The heaviest TS for many years,  $1\cdot 72$  in. of R falling in 3 hours.—*Bishops Cannings* (V). Heavy TS in afternoon, with  $1\cdot 24$  in. of R and large H stones. Two miles away only  $\cdot 32$  in. of R fell.—*Wycliffe College* (VI). Remarkable storm of wind and dust from N.W. about 4 p.m., followed by R and T.—*Credenhill* (VI). Very severe TS with L which struck 6 or 7 trees.—*Hereford, Burghill Court* (VI). Severe TS, with  $1\cdot 06$  in. of R falling in 2 hours 10 minutes. Burghill Church weathercock and many trees in the vicinity were struck by L. Some animals were also struck in the open and under willow trees.—*Hope-under-Dinmore* (VI). The most severe TS for 20 years commenced at 3.30 p.m. lasting 3 hours, with vivid L.—*Huntington Court* (VI). Heavy TSS from 1 to 4 p.m., and from 5 to 7 p.m.—*Bromyard, Buckenhill* (VI). In less than an hour  $1\cdot 10$  in. of R fell.—*Buxton* (VII). Heavy TS from 9.45 to 11.50 p.m. More than 500 flashes of L were observed.—*Hampson-in-Ellel* (VIII). Heavy TS, with  $2\cdot 13$  in. of R, of which  $1\cdot 50$  in. fell between 7.30 and 8.30 p.m.—*Cartmel* (VIII). Severe TS. Several sheep were killed and other damage done. The R was most partial, little over half an inch falling at Flookburgh, Cark and Holker, while nearly  $1\frac{1}{4}$  in. fell at Cartmel, and  $2\frac{1}{4}$  in. at Grange.—*Dolaucothy* (XI). Severe TS, with violent T and much L. Two bullocks were killed by heavy H stones on a farm 4 miles distant.—*Llangammarch Wells* (XI). Between 1.20 and 4 p.m.  $1\cdot 75$  in. of R fell, with heavy T and L.—*Londonderry*,

\* See also *Met. Mag.*, August, 1907, p. 130.

*Dunruadh* (XXIII). Torrential TS which was very partial: 1·98 in. of R fell in 1½ hours, but at Creggan Reservoir, 2 miles distant, not a drop fell. Large H stones broke 24 panes of glass in a greenhouse, and in another greenhouse, 1 mile to the S., every pane was broken.

21st and 22nd.\*—*Clanfield* (III). TS of terrific violence, with large H stones.—*Winchcombe* (VI). Three severe TSS occurred within 24 hours, with continuous vivid L; 2·73 in. of R fell in 24 hours causing destructive floods.—*Bourton-on-the-Water* (VI). 2·63 in. of R fell in the 25 hours from 4 p.m., 21st, to 5 p.m., 22nd.

22nd.\*—*Fulham* (I). Thick fog from 5 to 6 p.m.—*St. Pancras, Camden Square* (I). Heavy T about 4 p.m.—*Abingdon* (II). TS lasting 3 hours, when 1·86 in. of R fell, but at Cothill, about 3 miles N.W. of Abingdon, 2·92 in. was measured in the same time. A house was struck by L.—*Finchley* (III). Between 3 and 5.15 p.m. 2·18 in. of R fell.—*Mill Hill* (III). Severe TS, with 2·15 in. of R in 3½ hours from 3.10 p.m.—*Watford* (III). TS, with H and excessive R, 2·65 in. being measured, nearly all of which fell between 3 and 5 p.m. This fall has only once been exceeded here in the last 30 years.—*Culham* (III). In about an hour 1·32 in. of R fell.—*Witney* (III). Heavy TS; 1·93 in. of R fell in 4 hours.—*Bridgwater* (V). Heavy TS and R; 1·54 in. fell in about an hour and a half.—*Stroud* (VI). Heavy TS and heavy R in afternoon; 2·16 in. fell between 3 and 5.30 p.m. The L killed a heifer and struck a belfry in Stroud, and a tree close by.—*Wycliffe College* (VI). TS gathered at 3 p.m., and from 3.30 to 4.15 p.m. 1·50 in. of R fell. There were local floods, and crops in places were laid flat.—*Kentchurch* (VI). Heavy TS, with 1·77 in. of R. The Morrow rose tremendously, and at 6 p.m. all sorts of things were being borne along by the current.—*Huntington Court* (VI). Heavy TS from 2 to 4 p.m.—*Norbury* (VI). TS in early morning; 1·65 in. of R fell between 1.15 and 3.15 a.m.—*Mountain Ash* (XI). In 1 hour 1·55 in. of R fell.—*Llangammarch Wells* (XI). ·75 in. of R fell in three-quarters of an hour.—*Cerrig-y-Druidion* (XI).

“A curious occurrence took place at Grydd Hall, a mansion near Cerrig-y-Druidion. The lightning struck the chimney, ran down the interior, and set alight a ‘dead fire’ laid ready in the grate.”—*Manchester Guardian*.

—*St. Asaph* (XI). Violent TS and heavy R, 1·22 in. falling between 1.45 and 4.30 a.m.—*Sunnyside [Carlrow]* (XXI). TS and terrific H between 2 and 3 p.m. H stones measured 1½ in. in diameter.

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\* See also *Met. Mag.*, August, 1907, pp. 130, 133; September, 1907, p. 158; December, 1907, p. 217; also special article in the first part of this volume.

23rd.—*Goring* (III). Heavy TS causing much damage to crops. Four sheep were killed.

24th.—*Spreyton* (V). Heavy TS, but little R.

30th.—*Betchworth, The Holmes* (II). In 15 minutes .72 in. of R fell.  
—*Nottingham* (VII). In 15 minutes .58 in. of R fell; the heaviest local R storm for many years.

### AUGUST.

6th.—*Abinger Hall* (II). TS from 4.30 to 4.45 p.m., with H, R and vivid L.—*Epsom* (II). A heavy fall of H occurred during a TS from 4 to 9 p.m.

7th.—*Shropshire* (VI). Heavy TS over the S. of Shropshire, accompanied by vivid L.

10th.\*—*Abinger Hall* (II). Half an inch of R fell in about 20 minutes.

11th.\*—*Dunmanway* (XX). Great TS, with vivid L, lasting 2 hours, and .76 in. of R between 7.30 and 10.30 p.m.

14th.—*Winterbourne Steepleton* (V). Fog all day, with some R.—*Ashburton, Druid House* (V). Thick fog.—*Wirksworth* (VII). Heavy R, 1.40 in. measured, most of which fell between 11 p.m. and midnight.

15th.†—*Hawick, Branxholme* (XII). Almost tropical R occurred in a somewhat narrow belt crossing the district in a north-westerly direction; 1.17 in. fell between 6.30 and 8 a.m.

20th.—*Eastry* (II). S.

28th.—*Inveraray* (XV). R 1.57 in. The rise in the Aray and Shira was greater than for many years.

### SEPTEMBER.

2nd.—*Brampton* (X).—A severe frost at night damaged vegetables and flowers, and the leaves of the horse-chestnut and sycamore were shrivelled and brown.

3rd.—*Norwich* (IV). Max. temp. 53°·2, 40° lower than that on the same date in 1906.—*Stockton* (X). Min. temp. 24°; the most disastrous frost on record, killing all tender plants.—*Ballybrack* (XXI). Min. temp. 31°; the earliest frost ever recorded here.

4th.—*Thornton-le-Moor* (IX). Frost, which did much damage.—*East Layton* (IX). Hoar frost, doing much damage in places.—

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\* See also *Met. Mag.*, September, 1907, p. 158.

† See also *Met. Mag.*, October, 1907, p. 177.

*Stockton-on-Tees* (X). Severe frost.—*Snowdon* (XI). S on Snowdon in the morning.—*Dumfries* (XII). Sharp frost, which blackened potatoes, kidney beans, vegetable marrows, &c.—*Monymusk* (XVII). Frost blackened potato tops.

10th.—*Buchlyvie* (XV). Fine display of aurora and sheet L from 8.30 p.m. till morning.—*Drumnadrochit* (XVIII). Aurora. A magnificent stationary display all night.—*Carrablagh* (XXIII). Heavy R, with T and L from S. from 3.15 to 4.30 p.m. Between 4.45 and 5.20 p.m. .47 in. of R fell.

23rd.—*Addington Manor* (III). The first frost occurred at 6 a.m., and blackened all tender plants.

26th.—*Redruth, Trewirgie* (V). About 1.00 in. of R fell between 3.15 and 4 p.m.—*Truro* (V). TS, with 1.16 in. of R. Brilliant summer L, but little T.

27th.—*Upton-on-Severn* (VI). A slight earthquake shock was distinctly felt at 8.11 a.m., accompanied by a rumbling noise. The sensation, which lasted 2 or 3 seconds, was if a great weight had been dropped, or a heavy blow had struck the house. Furniture creaked, and there was a sound as if a great strain was being put on the timbers of the roof.—*Worcester* (VI). Slight but decided earthquake shock at 8.11 a.m.

## OCTOBER.

1st.—*Christchurch* (II). A sudden squall blew a mission tent down, but no one was hurt.

3rd.—*Tottingworth* (II). In 20 minutes .23 in. of R fell.

7th.—*Keswick* (X). First S of winter on Skiddaw and high fells.

8th.\*—*Bournemouth* (II). TS.—*Emsworth* (II). TS from 8.30 to 10 p.m.

8th—9th.—*Ballingarry* (XX). Very sooty R fell during the night.—*Ballymahon* (XXI). TSS.

8th—11th.—*Ardgillan* (XXI). TSS daily.

9th.—*Cirencester* (VI).—T and L at noon.—*Bishops Castle* (VI). TS.—*Church Stretton* (VI). Heavy T.—*Broughton-in-Furness* (VIII). T and L at night.—*Ruthin* (XI). TS.—*Waterford* (XX). T and L.—*Rathmines* (XXI). Heavy TSS between 4 and 7 p.m.—*Coolatore* (XXI). Severe TS in the afternoon. The R which fell was more or less black.

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\* See also *Met. Mag.*, November, 1907, p. 194.

9th—11th.—*Shrewton* (V). Continuous showers from S.E. for about 30 hours.

10th.—*Hartley Wintney* (II). TS.—*Blisworth* (III). Heavy T, L and R from 3 to 5 p.m.—*Rousdon* (V). At 0.50 p.m. .18 in. of R fell in less than 10 minutes.—*Mayfield House* [*Ashbourne*] (VI). TS.—*Colmonell* (XIV). T and L in the early part of the night.—*Belfast* (XXIII). T and L in evening.

10th and 11th.\*—*Totland Bay* (II). TSS.

11th.\*—*Westminster, Winchester Street* (I). TS from 2 to 2.45 p.m.—*Abinger* (II). TS, with H.—*Farnham* (II). T and L from 2 to 2.30 p.m.—*Epsom* (II). TS from 2 to 2.30 p.m., with H, and L of a deep blue colour.—*Wallington* (II). TS between 2 and 3 p.m.—*New Malden* (II). T and L at 2 p.m.—*Erith, Crossness* (II). TS and squalls from 2.30 to 3 p.m.; .30 in. of R fell in 30 minutes.—*Horsham* (II). T and L at 2 p.m.—*Sudbury* (IV). L at night.—*Thixendale* (IX). T and L.—*Blaenau Festiniog* (XI). TS in afternoon.—*Bettws-y-Coed* (XI). TS.

13th.—*Scourie* (XVIII). At 8.15 p.m. what appeared to be aurora shot up from a point on the eastern horizon. For a few seconds it had the appearance of a ship's searchlight, the ray of light contracting and expanding upward, then it suddenly shot round the sky to near the sea horizon on the west. The eastern end tapered to a narrow point and was more dense than the western end, which thinned off to the blue of the sky. It disappeared about 9.10 p.m.—*Orkney* (XIX).

“ Here in our *pen-ultima* Thule we are familiar with manifestations of the aurora borealis, but I have never seen anything in the least like the wonderful bow which stretched across the heavens from east to west. A little after 8 p.m. it had not appeared, and it was quite gone again by 9 o'clock. There was a low bank of aurora in the north-west all evening, the lights, though not brilliant, moving and wavering in their familiar old fashion. But the great bow, which seemed to spring from the eastern horizon just where the Pleiades were then rising into view, had no movement, none of the lance-like flashing, the pulsing and palpitating waves of light which so often give an unearthly glory to our northern heavens. It was an absolutely motionless band of light drawn across the zenith from horizon to horizon. Once, for a few seconds, it flushed to a dim rose colour. Even when it disappeared it did not widen and spread with the fantastic shifting and fading of the ordinary aurora, but gradually dimmed and vanished.”—R.

14th.—*Fareham* (II). R 1.09 in., causing floods.—*Wimpole Hall*

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\* See also *Met. Mag.*, November, 1907, p. 197.



(III). In 20 minutes .82 in. of R fell.—*Liskeard* (V). T and L at 10 p.m.

14th and 15th.—*Tavistock* (V).—TSS.

15th.—*Blackpool* (VIII). A gale sprang up with remarkable rapidity, the wind velocity rising from 8 miles to 50 miles per hour in five minutes. This coincided with a rise of bar.—*Broughton-in-Furness* (VIII). T and L.—*Beckfoot* (X). T and L.—*Seathwaite* (X). TS.—*Musselburgh* (XIII). T and L in afternoon; R 2.35 in.—*Edinburgh* (XIII). R 3.12 in., of which 2.30 in. fell between 9 a.m. and 9 p.m. Several streets were flooded.—*Colmonell* (XIV). Between 10 a.m. and 5.30 p.m. 1.35 in. of R fell.—*St. Andrews* (XVI). TS between 4 and 5 p.m.

15th and 16th.\*—*Kingsbridge* (V). N.E. gale and T, with 3.04 in. of R, between 9 a.m. on 15th and 5 a.m. on 16th. Two waterspouts were seen off the coast about 6 miles E. during the evening of 16th.—*Mansfield* (VII). From 5.30 p.m. on 15th to 8 a.m. on 16th 1.55 in. of R fell.

16th.\*—*Stoke Fleming* (V). 3.67 in. of R fell.—*Lincoln* (VII). R 3.00 in., by far the greatest fall in 24 hours during 24 years.—*Ballingarry* (XX). Sharp frost killed vegetable marrows, beans, dahlias, &c.

16th and 17th.—*Meltham* (IX). Continuous R, 2.75 in., from 7 p.m. on 16th, for 17 hours.—*Welshpool* (XI). Between 5 p.m. and 9 a.m. 1.76 in. of R fell.

17th.—*Llanfrechfa* (XI). Heavy T and L in N.W.

18th.—*Darrynane* (XX). Strong gale, with heavy sea and extremely high tide.

19th.—*Epsom* (II). T, L and heavy R.—*Swerford* (III). T and L in S.W. at 4.30 p.m.—*Tavistock* (V). TS.—*Bromfield Vicarage* (VI). Heavy TS, with unusually large H stones.—*Bishops Castle* (VI). TS.—*Church Stretton* (VI). Heavy T.—*Mayfield House* [*Ashbourne*] (VI). TS.—*Tenbury* (VI). T and L at 4 p.m.—*Barnt Green* (VI). TS at 4.30 p.m., with brilliant sunshine and a triple rainbow.—*Mansfield* (VII). TS and H.—*Chellaston* (VII). Severe TS.—*Wirksworth* (VII). TS at 5 p.m.—*Buxton* (VII). TSS at 3 and 5 p.m.—*Macclesfield* (VIII). TS at 4.30 p.m.—*Goldsborough* (IX). Heavy TS.

20th.—*Horsham* (II). T and L at 6 a.m.

26th.—*Hampstead* (I). Railway accident at West Hampstead

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\* See also *Met. Mag.*, November, 1907, p. 195.

owing to dense fog.—*Macclesfield* (VIII). Dense fog and darkness at 2 p.m.

29th.—*Frimley Green* (II). Heavy R for half an hour, measuring .48 in., and causing quite an unusual flow from the hills.

30th.—*Stoke Bishop* (VI). Great darkness for 20 minutes in morning.—*Tenbury* (VI). The River Teme overflowed its banks at night, and the streets of Tenbury were under water.

## NOVEMBER.

2nd—3rd.—*Truro, Killiow* (V). Heavy downpour from 5.45 p.m. on 2nd to 9 a.m. on 3rd. Total R for 2nd 2.16 in., and for 3rd .77 in.

3rd—5th.—Fog at *Maidenhead* (II), *Oxford* (III), *Clifton* (VI), *Gloucester* (VI), *Gainford* (X), *Llanfrechfa* (XI).

9th—11th.\*—Fog at *Epsom* (II), *Maidenhead* (II), *Fareham* (II), *Oxford* (III), *Raunds* (III), *Bere Regis* (V), *Watten* (XIX).

12th and 13th.—*Aberystwyth, Gogerddan* (XI). Hurricane from W. from about 6 p.m. on 12th to about 11 a.m. on 13th, accompanied at times by terrific R.—*Strachur* (XV). Sharp TS, with H on evening of 12th and morning of 13th.

18th.—*St. Pancras, Camden Square* (I). Continuous R for 15½ hours from 5.30 a.m. till 9 p.m.

20th.\*—*St. Pancras, Camden Square* (I). Dense fog at a considerable elevation above the ground. London was enveloped in darkness for several hours during the morning.

20th—22nd.—Fog at *Maidenhead* (II), *Winslow* (III), *Oxford* (III), *Woburn* (III), *Norwich* (IV), *Gloucester* (VI).

22nd.—*Barnt Green* (VI). No less than 126 varieties of flowers were counted in bloom in the garden.

23rd.—*St. Asaph* (XI). Distant T and heavy H.—*Denbigh* (XI). T and H.—*Llandudno* (XI). T, L and H at 6 p.m.

24th.—*Boston* (VII). Several inches of S.

25th.—*Deal* (II).

“A violent whirlwind wrecked farms at Sholden and Deal, three men being badly injured by the wreckage. The centre of the disturbance appears to have been at Sholden, about ten miles from Deal, where the effect of the whirlwind is of the most surprising and extensive character. At Wellard's farm, which was rebuilt after a great fire about five years ago, practically everything has been levelled by the terrific force of the wind. A massive slated barn was smashed up as if it were of cardboard, huge sections of corrugated iron forming the roofs of farm buildings have been found in

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\* See also *Met. Mag.*, December, 1907, p. 216.

fields quite half a mile away from the buildings from which they were stripped, the stacks were demolished, and straw and hay from them carried as far as a mile and a half from the farm. The track of the whirlwind appears to have been across country and along the Sandwich road, where some great trees have been blown down and splintered up like matchwood. Thence it struck Wakeham's farm at North Deal, where again a great amount of destruction was done. Massive stacks of straw and hay were blown away, buildings were unroofed, and other damage done at Sholden."—*The Standard*.

26th.—*Shrewton* (V). S.W. gale, ending in sharp TS.—*Wilcot* (V). L and T.—*Ross* (VI). Wye in flood (8 ft.)—*Burton, Hoar Cross* (VI). T and L.—*Earlestown* (VIII). Heavy S, followed by R.—*Wearhead* (X). About 2 inches of S.—*Dumfries* (XII). Three inches of S.—*Colmonell* (XIV) H and S.—*Dunmanway* (XX). T and L at night.—*Waterford* (XX). L in evening.

26th and 27th.—*Haslemere* (II). T and L.

27th.—*Chelsea* (I). TS at 4.55 p.m.—*Pimlico* (I). TS at 5 p.m.—*Hampstead* (I). TS at 5 p.m.—*Telegraph Hill* (I). TS and H.—*Farnham* (II). T and L between 6 and 7 p.m.—*Wallington* (II). L at 4.55 p.m.—*New Malden* (II). L in S.S.E. at 5 p.m.—*Tenterden* (II). H and L at 4 p.m.—*Erith, Crossness* (II). Sharp storm at 5 p.m., lasting about half an hour, with vivid L from S.W. to N.E.—*Totland Bay* (II). H and L.—*Hartley Wintney* (II). TSS.—*Haileybury* (III). A thick yellow fog accompanied by heavy R came up from the S. Both lasted only 10 minutes. Gas had to be lighted, a most unusual thing here.—*Royston* (III). L.—*Winslow, Addington* (III). Owing to the heavy R of the two previous days the meadows were all covered with water.—*Huntingdon* (III). L.—*Manor Park* (IV). T and L at about 4 p.m.—*Bulmer Lodge* (IV). Sudden and sharp squall of wind, R and H lasting 3 or 4 minutes at 10.15 a.m., accompanied by vivid L and simultaneous T. It was very dark before and during the squall.—*Copdock* (IV). Distant but vivid L.—*Sudbury* (IV). Severe flash of L, which struck a building.—*Little Saxham* (IV). Short but severe TS.—*Bury St. Edmunds* (IV). Severe TS, with much T and L.—*Norwich* (IV). L in S. and S.E. in evening.—*Weymouth* (V). TS.—*Bere Regis* (V). Heavy T and L at about 7 a.m.—*Tavistock* (V). L and distant T in evening.—*North Cadbury* (V). TS at 7 a.m. and L at 7 p.m.—*Coombe* (XI). Heavy TS and R at night.—*Carmarthen* (XI). H and T.—*Douglas* (XI). T and L at 8.45 a.m.

27th and 28th.—*Llanlear* (XI). TSS.

28th.—*Irby-upon-Humber* (VII). T, L and H.—*Goldsborough Hall*

(IX). Heavy TS in the evening, and .44 in. of R in about an hour.—*Warthill* (IX). TS of considerable severity. Several trees struck and two horses killed by L.—*Gainford* (X). Thick darkness fell over the village from 3 p.m. till about 5 p.m.

29th.—*Epsom* (II), *New Malden* (II), *Maidenhead* (II) and *Oxford* (III). Thick fog.

30th.—*Worcester* (VI), *Chelford* (VIII) and *Huyton* (VIII). Thick fog.

#### DECEMBER.

2nd and 3rd.—*Royston* (III). T and L.

3rd.—*Seathwaite* (X). T and L.—*Ballingarry* (XX). T and L.

3rd and 4th.—*Blackpool* (VIII). TSS.—*Broughton-in-Furness* (VIII). H, T and L.

4th.—*Macclesfield* (VIII). H and L at 7 p.m.—*Cartmel* (VIII). TS with L. The L was especially bright at about 7.15 p.m., so that the houses in Morecambe, across the bay, were distinctly seen as if very near during the bright light of the flashes. One flash seemed to drop down like a splash simultaneously with the T, and the sulphurous smell was extremely strong.—*Aberystwyth* (XI). T, with heavy R, at 11.30 p.m.—*Ballinasloe* (XXII). T, L and R at 3 p.m.

5th.—*Wilcot* (V). R 1.03 in. between 2 and 6 a.m. Field drains being unable to carry away the water, it was possible to see what the country was like before drainage existed. One old watercourse, almost dry for years, was traced several miles and showed the line of a parish boundary previously difficult to make out.—*Winterbourne Steepleton* (V). T and L, with heavy R. A cottage in the village was struck by L at 3 a.m.

6th.—*Totland Bay* (II). L.—*Seathwaite* (X). TS.—*Dumfries* (XII). T and L at 1 a.m.

7th.—*Ballingarry* (XX). T and L.

8th.—*Epsom* (II). Violent R; in 3 minutes, from 1.45 to 1.48 p.m., .16 in. of R fell.—*Eastbourne* (II). T, L and H.—*Cirencester* (VI). Fierce squalls from 0.20 to 0.45 p.m., L at 10 p.m., and wild W. gale all night.

9th.—*Boxworth* (III). During the evening there was a sharp shower of R, lasting about 10 minutes, from a sky perfectly free from cloud except low down in the W.—*Marlow* (III). The highest flood in the Thames for four years. Miles of meadow-land inundated and the towing-path blocked.

11th.—*Cannington* (V). Three inches of S.

12th—13th.—*Watford* (III). Gale in night. A tree blown down.

12th—14th.—*Tottingworth* (II). Terrific wind from N.W.; no damage here, though much in the neighbourhood.

13th.—*Colchester* (IV). Terrific wind about 10 p.m.

13th and 14th.—*Tenterden* (II). Violent W. to N.W. gales.—*Blisworth* (III). Terrific S.W. and N.W. gales in night.—*Pentland Hills, Crosswood* (XIII). S fell very rapidly between 11.30 p.m. 13th and 8 a.m. 14th to a depth of  $9\frac{1}{2}$  inches.

14th.—*Bisham* (II). A magnificent elm, planted when William of Orange landed in 1688, fell in the gale about midday. The Thames floods were highest on this day.—*Hampton Court* (III).

“So wide is the area of the flooded land at Hampton Court that avenues of tall trees, which usually mark the river bank, are now almost in the centre of the stream. The numerous visitors to Hampton Court to see the floods noticed with amusement an angler in a punt quietly fishing over a lawn, surrounded by currant and gooseberry bushes.”—*Daily Telegraph*.

—*Haileybury* (III). A few trees were blown down in the neighbourhood.—*Chelford* (VIII). Great storm of wind and R from N.W.

15th.—*Marlow* (III). Thames flood; 2 ft. 8 in. above summer level.

16th.—*Raunds* (III). High floods in the Nene valley.

19th and 20th.—*Broughton-in-Furness* (VIII). About 36 hours' constant R. Total for the two days 2·81 in.—*Cargen* [*Dumfries*] (XII). Between 7 p.m. on 19th and 9 a.m. 20th 2·15 in. of R fell.

24th.—*Epsom* (II), *Thornton Curtis* (VII), *Wirksworth* (VII), *Chelford* (VIII) and *St. Andrews* (XVI). Thick fog.

24th—29th.—*Aberystwyth* (XI). Strong S.E. to E. gale.

25th.—*Barnt Green* (VI). Seventy varieties of flowers were counted in the garden.

25th—27th.—*Cork* (XX). Heavy R, causing great floods.

26th—27th.—*Didworthy* (V). S commenced at 7 p.m., fell all night, and was 4 inches deep in the morning.

27th.—*Moretonhampstead* (V). Four and a half inches of S.

27th and 28th.—*Lyme Regis* (V). Heavy S.—*Ashburton* (V). S began at 7 p.m. on 27th and on 28th was four inches deep.

28th.—*Limavady* (XXIII). Where the Midland Railway line passes the shores of Lough Foyle the metals were buried under hundreds of tons of sand blown in from the the shore by the gale. The traffic was delayed for several hours while the line was being cleared.

31st.—*Moretonhampstead* (V). Three inches of S.

## OBSERVERS' NOTES ON THE MONTHS.

## JANUARY.\*

## ENGLAND.

I. LONDON.—*St. Pancras, Camden Square.* After a wet day on 1st, followed by a W. gale on 2nd, the first half proved mild and very dry but rather dull. Frost set in on 18th, and from 22nd to the end it was cold, with little R and bitter winds at times. Mean temp.  $38^{\circ}\cdot8$ , or  $0^{\circ}\cdot7$  above the average. Duration of sunshine 40·1 hours, and of R 18·1 hours. R 1·07 in., or 54 per cent., below the average of 50 years.

II. SOUTH EASTERN COUNTIES.—*Haslemere.* Mild during first half, but cold from 23rd to 27th. Mean temp.  $40^{\circ}\cdot0$ , or a little below the average.—*Guildford.* R 1·02 in. below the average.—*Dorking.* R 1·71 in. below the average.—*Wallington.* R ·74 in., and rain days 8, below the average. Duration of sunshine 39·2 hours (Jordan), being 0·7 hour, or 2 per cent., below the average.—*Tenterden.* A dry month with a cold period from 22nd to 27th. Duration of sunshine 66·4 hours (Jordan).—*Gravesend.* A cold dry month with prevalent N. winds, frost and slight snow. Good for land, but bad for people.—*Hailsham.* Very dry, with more sunshine than is usual in January, for the first three weeks with high temp., after which it was severely cold for some days.—*Heathfield.* The month opened with a storm which was succeeded by fine, mild weather to the middle. All fruit trees appeared well set with buds and were uninjured by frost; but bullfinches had attacked the damsons, plums and the flowering cherries. The latter part was unsettled, with showers and frost predominating.—*East Grinstead.* R ·95 in. below the average of 17 years.—*Christchurch, Winkton Lodge.* Pleasant, mild and dry. Grass min. on 26th fell to  $14^{\circ}$ , and ice rapidly accumulated in river Avon, forming a beautiful spectacle. The last days were mild and sunny.

III. SOUTH MIDLAND COUNTIES.—*Harrow Weald.* R ·87 in. below the average of 15 years.—*Harpenden.* Much drier and sunnier than

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\* See also *Met. Mag.*, February, 1907, p. 19.

usual, with average temp. Latter half much the colder. Duration of sunshine 66·5 hours.—*Goring*. Very dry, with prevailing N.E. winds, and extremely cold from 22nd to 30th.

IV. EASTERN COUNTIES.—*Upminster Hall*. Thaw set in on 1st, succeeded by frost on 3rd and 4th, then milder till the 18th ; afterwards colder, foggy and frosty every night, except 28th, till the end. Very little sunshine.—*Colchester*. Mild during the first half, but cold from the 21st to the end, with much N. or E. wind. Skating from 24th to 27th.—*Copdock*. Deficient R and moderate temp. till towards the close, when it turned cold, and very unpleasant conditions prevailed. S squalls and icy N. gales from 28th to 31st. The mean temp. was  $37^{\circ}4$ , and duration of sunshine 78 hours.—*Norwich, Eaton*. The mean temp. for the month,  $36^{\circ}8$ , was about the average, but the mean for the first half was  $3^{\circ}1$  above the average, and for the second half  $4^{\circ}1$  below.

V. SOUTH WESTERN COUNTIES.—*Bishops Cannings*. R 1·16 in., and number of rain days 6, below the average.—*Yatesbury*. The R was less than half the average. A cold period occurred from 22nd to 26th, but mean monthly temp. was  $37^{\circ}$ , or about the average.—*Weymouth*. Mean temp.  $39^{\circ}4$ , and duration of sunshine 74·4 hours.—*Tavistock, Whitchurch*. Generally cold, with R less than half the average and the least January fall since 1898. Gales on 9 days and TSS on 2. The mean daily temp. varied from  $46^{\circ}3$  on 1st to  $23^{\circ}5$  on 24th.—*Bramford Speke*. Showery in the first week, mild and foggy in the second and third, and windy with frost, R and S in the last week.—*North Cadbury Rectory*. The driest January in 11 years and the coolest since 1897. The first two-thirds of the month were mild, but the last ten days were cold, especially the 23rd and 24th.

VI. WEST MIDLAND COUNTIES.—*Cirencester*. Remarkably dry, the R being more than 1·60 in. below the average. Very wintry from 22nd to 27th, with bitterly cold E. winds.

VII. NORTH MIDLAND COUNTIES.—*Louth*. R 1·16 in. below the average of 36 years.—*Wirksworth*. Frost throughout, except during a mild spell from 8th to 17th. The S of Christmas still lay in drifts at the end of the month.—*Buxton*. Dry and fine, with R below, and sunshine above, the average. Duration of sunshine 60·5 hours.

VIII. NORTH WESTERN COUNTIES.—*Chatburn*. R 1·55 in. below the average of 18 years.—*Blackpool*. Wintry and squally during the first and last few days, but the intervening period was dry and fairly bright. The mean temp. was above the average to the 18th, but

from this date it was cold and frosty. The duration of sunshine was 54·8 hours, and above the average. R 1·51 in. below the average.

IX. YORKSHIRE.—*Hull*. Moderate R and many dull days. Wintry weather set in on 23rd and continued to the end, with severe frosts and much S.—*East Layton Hall*. A lovely month, just like spring from 5th to 27th. Splendid for planting and all outdoor work.

X. NORTHERN COUNTIES.—*Ilderton*. Remarkable for drought and extremely high bar. Very mild and fine to the 22nd, then frost and showers of S, with cold winds.

XI. WALES.—*St. Asaph*. Dry and mild, with some bright days to 22nd, when frost set in until 26th. Unsettled weather followed until 30th when the frost returned.

### SCOTLAND.

XII. SOUTHERN COUNTIES.—*Moniaive*. R 1·88 in. below the average.

XIII. SOUTH EASTERN COUNTIES.—*Bathgate*. Cold, stormy and expensive weather. Cattle and sheep could get nothing to eat from the 17th to the 31st, and hand feeding had to be resorted to. The storms blew down old trees and took slates and tiles off houses and steadings.

XV. WEST MIDLAND COUNTIES.—*Buchlyvie*. Changeable, but on the whole mild, with four or five stormy days. R ·87 in. below the average of 18 years.

XVIII. NORTH WESTERN COUNTIES.—*Drumnadrochit*. R 1·44 in., and rain days 3, below the average of 21 years.

### IRELAND.

XX. MUNSTER.—*Clonmel*. The driest January for at least 43 years.—*Broadford*. Cold and severe, with R 1·64 in., and rain days 2, below the average of 22 years. Water was running very low in many places.

XXI. LEINSTER.—*Abbey Leix*. The lowest January R since 1881.—*Ballybrack*. The lowest R recorded in 31 years and 2·02 in. below the average. Spring flowers were backward.—*Rathmines*. The least R and the fewest rain days in the record. Mild, anticyclonic conditions prevailed from the 4th to the 27th, but the end was cold with occasional S showers. The mean temp. was 41°·0.

XXIII. ULSTER.—*Banbridge, Milltown*. R ·59 in. below the average of 40 years.—*Belfast*. A most serviceable month and of great interest



to agriculturalists, even the wintry days at the end being welcome. R almost an inch below the average.

## FEBRUARY.\*

### ENGLAND.

I. LONDON.—*St. Pancras, Camden Square.* The first week was dry and frosty, but the anticyclonic conditions gave way on 7th, and overcast, damp weather followed without much rise of temp. The second half was milder, with considerable sunshine and, after 20th, no R. Duration of sunshine 53·7 hours, and of R 23·4 hours. Mean temp. 37°·8, or 2°·0 below the average. R ·45 in., or 28 per cent., below the average of 50 years.

II. SOUTH EASTERN COUNTIES.—*Epsom.* Fine but cold, with average R; mean temp. 36°·0—*Wallington.* Mean temp. 37°·2, or 1°·5 below the average. Duration of sunshine 55·8 hours (Jordan), being 8·1 hours, or 3 per cent., below the average.—*Tenterden.* Cold with a violent S.W. to W.N.W. gale on 19th and 20th, and dry weather during the last week. Duration of sunshine 75 hours (Jordan).—*Folkestone.* R ·68 in., and mean temp. 2°·3, below the average.—*Heathfield.* A month of varieties. The roads were like glass with ice in the first part, and ponds quite safe for skating.—*Maidenhead.* Overcast weather, alternating with sunshine, prevailed during the first 9 days, succeeded by misty, squally weather to the 18th, and a W. gale from the 19th to the 21st. The remainder was similar to the early part.

III. SOUTH MIDLAND COUNTIES.—*Heddon.* Dry generally, with low temp., except from 14th to 21st, when mild, overcast conditions prevailed. Rough and unsettled on 20th and 21st, followed by cold, calm conditions to the close.—*Woburn.* Dry, with many severe frosts, which made work on the land almost impossible during the first fortnight. Some progress was made with sowing during the last week.—*Amphill.* R ·59 in. below the average of 16 years.

IV. EASTERN COUNTIES.—*Copdock.* A most unpleasant month. Dull, cold and damp, except from 20th to 24th, when, however, there were gales and cold winds. R was again deficient and vegetation was backward. Duration of sunshine 73·2 hours.

V. SOUTH WESTERN COUNTIES.—*Bishops Cannings.* R 1·00 in., and rain days 1, below the average.—*Yatesbury.* A cold month, but with

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\* See also *Met. Mag.*, March, 1907, p. 41.

no extremely severe frosts. The mean temp. ( $36^{\circ}$ ) and R were both below the average.—*Weymouth*. Mean temp.  $39^{\circ}0$  and duration of sunshine 109·3 hours.—*Torquay*. Duration of sunshine 102·4 hours, or 20·9 hours above the average, and mean temp.  $39^{\circ}9$ , or  $3^{\circ}3$  below the average.—*Tavistock, Whitchurch*. Cold and dry, with S.E. winds. The mean daily temp. varied from  $46^{\circ}4$  on 15th to  $30^{\circ}1$  on 23rd.

VII. NORTH MIDLAND COUNTIES.—*Buxton*. Rather cold, but with R below the average and duration of sunshine 78·0 hours, which is above the average.

VIII. NORTH WESTERN COUNTIES.—*Blackpool*. Fairly dry and cold during the first and fourth weeks, but unsettled and showery in the intervening period. Bright sunshine was plentiful, except during the last week, and was 35·9 hours above the average. Mean temp.  $36^{\circ}0$ , or  $2^{\circ}1$  below the average. R ·77 in. below the average of 35 years.

XI. WALES.—*St. Asaph*. Cold, bright and calm, with hard frosts to 12th, followed by milder, showery weather to 22nd. A succession of storms began on 17th, the wind becoming very violent on 19th and 20th. Bright, dry weather from the 23rd to the end.—*Llandudno*. Fine and seasonable, with 98·7 hours of sunshine. Vegetation was very advanced towards the end.

#### SCOTLAND.

XII. SOUTHERN COUNTIES.—*Dalry*. A most wintry month, S lying on the ground throughout except for a few days of wet, stormy weather about the middle.

XIII. SOUTH EASTERN COUNTIES.—*Musselburgh*. The month began with a cold spell, the mean temp. for the first 6 days being barely  $30^{\circ}$ , and another cold spell occurred from 19th to 23rd.

XV. WEST MIDLAND COUNTIES.—*Buchlyvie*. R ·97 in. above the average of 18 years.

XIX. NORTHERN COUNTIES.—*Watten*. Frost during the first 12 days; the rest of the month was stormy with some S.

#### IRELAND.

XXI. LEINSTER.—*Ballybrack*. R 1·23 in. below the average of 30 years. Vegetation was very backward.—*Rathmines*. Dry and quiet, with frequent frosts and mean temp.  $38^{\circ}1$ . Mild from 14th to 19th. Densely overcast, anticyclonic weather during the last 4 days, resembling late autumn rather than February.

XXIII. ULSTER.—*Banbridge, Milltown.* R  $\cdot$ 65 in. below the average of 40 years.

### MARCH.\*

#### ENGLAND.

I. LONDON.—*St. Pancras, Camden Square.* The month was remarkably fine, sunny, warm and dry. The last week in particular resembled June rather than March; on each of the last five days the shade temp. exceeded  $60^{\circ}$ , and on the 31st reached  $68^{\circ}\cdot 7$ . Mean temp.  $44^{\circ}\cdot 2$ , or  $2^{\circ}\cdot 1$  above the average. Duration of sunshine 151 $\cdot$ 4 hours, and of R 28 $\cdot$ 0 hours. In the last two weeks the duration of sunshine was 90 $\cdot$ 0 hours, and of R only 0 $\cdot$ 5 hour. R  $\cdot$ 72 in., or 43 per cent., below the average of 50 years.

II. SOUTH EASTERN COUNTIES.—*Epsom.* Fine and dry, with a considerable range of temp. Frosts were prevalent, and rough, stormy weather was experienced from 18th to 20th. Mean temp.  $43^{\circ}\cdot 6$ .—*Wallington.* The mean max. temp,  $53^{\circ}\cdot 9$ , and the duration of sunshine, 189 $\cdot$ 4 hours (Jordan), were the highest March records for the past 20 years.—*Folkestone.* R 1 $\cdot$ 04 in. below the average; mean temp.  $44^{\circ}\cdot 4$ .—*Heathfield.* Grass and all spring growth was at a complete standstill until the 20th, but the warm days which followed brought out the violets and primroses all at once. Pears and plums were one mass of buds, and gooseberries were in leaf and bristling with bloom. Bees were happy.—*East Grinstead.* R 1 $\cdot$ 31 in. below the average of 17 years.—*Chale.* The month opened with a dry spell, cold winds and fog being common towards evening. Dull days with R and wet fog followed, but from 20th to the end it was very fine, with brilliant sunshine.—*Grayshott.* Duration of sunshine 221 $\cdot$ 6 hours, or more than twice the average.—*Bournemouth, Kempsey.* Exceptionally dry and bright. Mean temp.  $1^{\circ}\cdot 3$  above the average. Strong winds or gales from the 14th to 20th, and a remarkable spell of beautiful and rainless weather from the 17th to the 31st, with brilliant sunshine and cloudless skies.

III. SOUTH MIDLAND COUNTIES.—*Harrow Weald.* R  $\cdot$ 95 in. below average of 15 years.—*Harpenden.* Drier and warmer than the average, but with frequent night frosts. Bright sunshine was very considerable during the latter half, the total duration being 206 hours, or 92 hours above the average.—*Hedsor.* Fine and calm at the

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\* See also *Met. Mag.*, April, 1907, pp. 54, 61.

beginning, then mild, rough and unsettled with W. winds until 20th. Fine, dry and summerlike from 20th to the close, with high day temp. but frost nightly.—*Goring*. Extremely cold winds during the early part of the month, with low night temp., but the last 10 days were fine, with almost continuous sunshine after thick morning mists.—*Amphill, Higham Bury*. R .69 in. below the average of 16 years.—*Thorney*. The early part was showery, with foggy mornings, followed by gales from 13th to 20th. The last ten days were bright, warm and sunny, with frosty nights.

IV. EASTERN COUNTIES.—*Copdock*. A wonderful month for sunshine, particularly the last 9 days when there was hardly a cloud in the sky. Rain was badly needed for wells and gardens. Duration of sunshine 212 hours.—*Southwold*. The first part was mostly calm: heavy gales in the middle of the month, and the latter part was exceptionally fine and summerlike. Duration of sunshine 206·9 hours.

V. SOUTH WESTERN COUNTIES.—*Weymouth*. Mean temp. 46°·4, and duration of sunshine 211·9 hours.—*Tavistock, Whitchurch*. Warm, dry and sunny, with R only half the average. The mean daily temp. varied from 36°·0 on the 12th, to 53°·1 on 29th.—*Rousdon*. Remarkably fine and bright, with 207 hours of sunshine, the highest March record since observations began in 1884.—*North Cadbury*. Unusually boisterous from 5th to 20th inclusive, and as unusually calm before and after. The hedges were still brown at the end in spite of the warm days, being unable to burst into green from sheer want of R.—*Edington*. Very dry with the exception of the second week. The close of the month produced the most brilliant weather of the year, and the Easter Festival, though early, was of remarkable splendour and geniality.

VI. WEST MIDLAND COUNTIES.—*Cirencester*. Fine mild days, with sharp night frosts until 7th when extremely wild and stormy weather set in with severe S.W. gales lasting to 20th. The last ten days were remarkably fine and sunny, with slight frosts each night.—*Ross*. With the exception of 1893, the lowest March R since the record commenced in 1859.—*Hoar Cross*. A noteworthy month by reason of its dense fogs, high winds and extraordinarily high temperature.—*Mayfield House [Ashbourne]*. Wet and stormy until 19th; then fine and sunny to the close. The last week had warm days and cold frosty nights. Mean temp. 41°·8, and duration of sunshine 158·7 hours.—*Worcester*. Brilliantly fine, especially in the last ten days, with temp. far above normal. Tea was served out of doors

during the last week. In spite of the hot days, the nights were cold with sharp frosts. R was beginning to be much needed, but all vegetation was most promising.

VII.—NORTH MIDLAND COUNTIES.—*Louth*. R .67 in. below the average of 36 years.—*Grimsby*. A remarkably sunny and dry March. Heavy gales and strong winds prevailed from 8th to 19th, but the last ten days were like August, sometimes uncomfortably hot, though cool in the evenings.—*Worksop*, *Hodsock Priory*. The sunniest March for at least 26 years. Max. temp. 66° and upwards on each of the last five days. In 31 years this temp. has only been reached 5 times in March and never more than twice in one month.—*Wirksworth*. S remained under hedges on the hills for the first week. The middle of the month was stormy, with almost continuous gales, but from 21st to the end it was fine and bright, with continuous sunshine and increasing warmth, but ground frost at night.

VIII. NORTH WESTERN COUNTIES.—*Chatburn*. R 1.63 in. above average of 18 years.—*Blackpool*. The early part was bright, though unsettled and showery, but from the 17th to the end was exceptionally brilliant. It was cooler than usual in the first and second weeks, but in the third and fourth the mean shade temp. was considerably in excess. The duration of sunshine was 180.9 hours, or 74.2 above the average and the largest yet recorded at this period of the year.

XI. WALES.—*Carmarthen*. Cold winds, with white frosts in early mornings. The latter part was exceptionally bright and favourable to gardening and corn-sowing. Trees and grass were backward in growth, but fruit prospects were good.—*St. Asaph*. The first week was mild, bright and fair, but wind and R followed till 20th. Remarkably fine and warm conditions prevailed from 20th to the end.

## SCOTLAND.

XII. SOUTHERN COUNTIES.—*Dumfries*. Unusually wet weather characterised the first half, but the second half was favoured by high temp. and entire absence of R. A good seed-bed for corn was obtained, and vegetation made rapid progress. The absence of E. winds was marked.

XIX. NORTHERN COUNTIES.—*Watten*. The first three weeks were wet and foul with S storms and gales, but no floods; the last week was dry, mild and sunny.

## IRELAND.

XXI. LEINSTER.—*Ballybrack*. R .69 in. below the average of 30 years.

XXIII. ULSTER.—*Banbridge, Milltown*. R .67 in. above the average of 40 years.

## APRIL.\*

## ENGLAND.

I. LONDON.—*Fulham, Edith Road*. R 1.66 in. above the average and the greatest in April for at least 24 years.—*St. Pancras, Camden Square*. The brilliant weather of Easter gave way on 3rd to unsettled conditions, which lasted throughout the month, with copious R at frequent intervals. After 2nd the shade temp. reached 60° on three days only, but there were few frosts. Mean temp. 47°·3, or 0°·8 below the average. Duration of sunshine 104.2 hours, and of R 65.6 hours. R 1.57 in., or 95 per cent., above the average of 50 years.

II. SOUTH EASTERN COUNTIES.—*Warlingham*. The wettest April for 15 years. Mean temp. 45°·6.—*Epsom*. Very wet, with low temp. and considerable cloud amounts. Mean temp. 46°·7.—*Wallington*. Duration of sunshine 120.7 hours (Jordan), or 36.9 hours below the average of 20 years, and R 2.37 in. above the average. Mean temp. 47°·2.—*Tenterden*. The wettest April since 1879. Duration of sunshine 158 hours (Jordan).—*East Grinstead*. The wettest April in 18 years, R being 2.11 above the average.—*Totland Bay*. Heaviest April R in 21 years. Duration of sunshine 167.6 hours.

III. SOUTH MIDLAND COUNTIES.—*Harpenden*. Wet and, with the exception of 4 very warm days, generally cold weather. The duration of sunshine was 26 hours below the average.—*Buntingford*. R 2.06 in. above average of 25 years, and the largest April fall in the record.—*Amphill, Higham Bury*. R 1.07 in. above the average of 16 years.—*Cambridge*. The month opened with sunshine, high temp. and little wind, but became cold on 4th and continued cold and wet to the end with several night frosts.

IV. EASTERN COUNTIES.—*Copdock*. Duration of sunshine 152 hours, and mean temp. 46°·2.—*Norwich*. The heaviest April R on record since 1865.

V. SOUTH WESTERN COUNTIES.—*Warminster*. The wettest April for 16 years, but a fine growing month. A good hay crop was ensured

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\* See also *Met. Mag.*, May, 1907, pp. 69, 81, and June, 1907, p. 90.

for the coming year.—*Tavistock, Whitchurch*. Wet and cold, with R nearly double the average. The mean daily temp. varied from  $40^{\circ}\cdot 2$  on 3rd, to  $57^{\circ}\cdot 1$  on 24th.—*Cheriton Bishop*. Alternate R and sunshine, and fairly warm and bitterly cold weather succeeded each other with extraordinary rapidity.

VI. WEST MIDLAND COUNTIES.—*Cirencester*. Unsettled and cold throughout, with abundant R, but a most useful month for agriculture.—*Stokesay*. The amount of sunshine was quite exceptional. Towards the end severe frosts did a great deal of damage to crops, a drizzling R on the evening of 27th had no time to dry off the trees, but froze at once. The bloom was completely spoilt ; as a consequence there was little stone fruit and few early apples.—*Mayfield House [Ashbourne]*. Duration of sunshine 127 hours, and mean temp.  $44^{\circ}\cdot 2$ .

VII. NORTH MIDLAND COUNTIES.—*Buxton*. A hot spell at beginning but altogether rather cool, with R below the average. Mean temp.  $42^{\circ}\cdot 2$ , or  $0^{\circ}\cdot 8$  below the average, and duration of sunshine 126·6 hours.

VIII. NORTH WESTERN COUNTIES.—*Blackpool*. Cool, bright and fair, except a few showery days at the beginning and end. Duration of sunshine 170 hours, or  $21\cdot 5$  hours above the average.—*Hampson-in-Ellel*. After two summer-like days winter returned with cold, strong N. and E. winds lasting to the end of the month. A sudden drop in temp. to  $22^{\circ}$  on the 17th did some damage to gardens.—*Broughton-in-Furness*. Warm at the beginning and fine days and cold nights from 7th to 19th. The rest of the month was cold and showery.

XI. WALES.—*St. Asaph*. Changeable, showery weather to 9th, followed by E. winds and mists to 14th. From 15th to 20th the days were fine and the nights cold. N. winds with frequent heavy showers characterised the close.

## SCOTLAND.

XII. SOUTHERN COUNTIES.—*Dumfries*. Cold and bleak, but without low min. temp. Cold W. winds at the close, accompanied by blizzard like showers, occasioned a serious check to vegetation.

## IRELAND.

XX. MUNSTER.—*Mitchelstown Castle*. Cold and ungenial except for a short spell after 20th. H showers caused some damage to fruit

trees.—*Broadford*. R 1·20 in., and rain days 1, above the average of 22 years.

XXI. LEINSTER.—*Rathmines*. Dull, cheerless and ungenial, with R frequent and above the average. The dense gloom and haze of some days resembled a typical November. Mean temp. 45°·0.

XXIII. ULSTER.—*Banbridge, Milltown*. R ·82 in. above the average of 40 years.

## MAY.\*

### ENGLAND.

I. LONDON.—*St. Pancras, Camden Square*. A normal month in most respects. The temp., although the mean was 54°·3, or 0°·3 above the average, was as a rule low, except during short periods in the second and fourth weeks. Polar winds rather predominated, and the amount of cloud was abnormally large. Duration of sunshine 137·0 hours, and of R 35·9 hours. R ·13 in., or 7 per cent., below the average of 50 years.

II.—SOUTH EASTERN COUNTIES.—*Warlingham*. Spring flowers did well, and foliage and tree growth developed singularly in spite of overcast skies, cold winds and a marked absence of sunshine.—*Epsom*. Cloudy and generally unsettled, with damaging ground frosts from 18th to 21st and keen E. winds towards the end. Mean temp. 52°·8.—*Wallington*. Mean temp. 52°·8, or 0°·3 below, and R ·08 in. below, the average. The duration of sunshine was 149·5 hours (Jordan), or 49·4 hours below the average.—*Tenterden*. Changeable weather and temp. Duration of sunshine 184 hours (Jordan). Fruit trees were blighted, but grass was abundant.—*Sevenoaks*. A heat wave from 10th to 12th raised the temp. to 78°, but otherwise the weather was as fickle as possible. After the heat wave there were frosty nights and cold N. winds during the day, and then another warm spell for a day or two.—*Folkestone*. R ·54 in. above the average, and mean temp. 52°·6, or 0°·7 above the average.—*Chale*. Remarkable for absence of sunshine, and although no great quantity of R fell, it was generally cold and damp, with sea fogs. A warm spell was experienced from 10th to 15th, after which the temp. fell considerably, rising again slightly towards the end.—*Christchurch, Winkton Lodge*. Cool and dry, with a burst of heat on 11th and 12th, when the temp. reached 67°, succeeded by cool winds and dull showery

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\* See also *Met. Mag.*, June, 1907, pp. 89, 101.



weather from 17th to 21st. T on 26th, after which temp. rose. Vegetation was backward, but the country looked beautifully fresh and green.

III. SOUTH MIDLAND COUNTIES.—*Harpenden*. Rather more than the average R, but temp. about normal, although cold N. and E. winds prevailed on several days. A warm period of 3 or 4 days occurred in the second week; the duration of sunshine was 31 hours below the average.—*Castle Ashby*. The wettest May since observations commenced in 1873.—*Huntingdon*. Both here and in the village of Brampton floods spoiled much of the hay crop.—*Amphill*, *Higham Bury*. R 1·33 in. above the average of 16 years.—*Cranfield*. Wet and cold, with hardly any sunshine. The outlook was serious for farmers, as the soil was heavy and consequently unworkable, and crops were choked with weeds.

IV. EASTERN COUNTIES.—*Copdock*. Cold and cheerless, there being only 3 really warm days. Duration of sunshine 186 hours, and mean temp. 52°·6.—*Norwich*. Remarkable for great and sudden variations of temp. Much cold and wet weather in latter part.

V. SOUTH WESTERN COUNTIES.—*Weymouth*. Mean temp. 52°·5, and duration of sunshine 149·5 hours.—*Ashburton*, *Druid*. The wettest May since 1878. Cold nights with valley frosts did much injury to apple blossom.—*Tavistock*, *Whitchurch*. Cloudy and rather cold, with the heaviest R since observations began in 1893. Mean daily temp. varied from 42°·0 on 1st to 58°·1 on 28th.—*Edington*. Cold, dark and depressing, with constant R, lack of sunshine, and much disturbed weather. A heavy N.W. gale during last three days did much damage to vegetation.

VI. WEST MIDLAND COUNTIES.—*Cirencester*. A fickle, cold, sunless May, with very few warm days. Vegetation was much retarded, although the temp. was never below freezing point.—*Stokesay*. During the first week pleasant weather was experienced, followed by dull, muggy weather, with a good deal of fog. Fine weather followed, but a cold spell set in on 14th, and for many days at this period there was an absence of sunshine.—*Mayfield House* [*Ashbourne*]. The duration of sunshine, 138·8 hours, was much below the average.—*Furnborough* (*Warw.*) Although blue sky was visible on 24 days, the month was almost sunless. Cold, showery weather prevailed generally, in spite of which vegetation and flowers were robust and not late.

VII. NORTH MIDLAND COUNTIES.—*Louth*. R 1·59 in. above the average of 35 years.—*Grimsby*. Exceptionally bleak, cold and wet. With the exception of a few springlike days at the beginning, the month was more like October than May.—*Buxton*. A wet month, the R being 1·01 in., and rain days 9, above the average of 20 years. Duration of sunshine 115·9 hours or 50 hours below, and mean temp. 47°·5 or 0°·8 below, the average.

VIII. NORTH WESTERN COUNTIES.—*Macclesfield*. R ·89 in. above the average of 55 years, and mean temp. 2°·9 below the average of 25 years.—*Blackpool*. Cool, unsettled and showery, with R ·78 in. above the average of 35 years. Duration of sunshine 150·8 hours, or 47·8 hours below the average of 20 years.

### SCOTLAND.

XII. SOUTHERN COUNTIES.—*Dumfries*. Wet and cold, with R more than double the average of 48 years. A frost on 23rd did much havoc in garden, but hay and corn crops promised well. Duration of sunshine 117 hours.

XIII. SOUTH EASTERN COUNTIES.—*Musselburgh*. Very unseasonable, especially during the latter half, with cold winds generally from the E.

XV. WEST MIDLAND COUNTIES.—*Buchlyvie*. R 1·70 in. above the average of 18 years. The ground was so saturated that farm and garden work was carried on with great difficulty.—*Campbeltown*, *Witchburn*. The wettest May in 35 years.

XVIII. NORTH WESTERN COUNTIES.—*Inverpolly*. Cold weather with high E. winds rendered this the stormiest May on record in this locality.

### IRELAND.

XX. MUNSTER.—*Broadford*. R ·59 in. above the average of 22 years, yet water was running short, many wells being quite dry.

XXI. LEINSTER.—*Ballybrack*. R 1·34 in. above the average of 30 years.—*Rathmines*. A thoroughly unfavourable month, the early part being wet, with occasional gales and H, T and L. From 13th to 30th dry weather prevailed, with harsh E. winds. Mean temp. 49°·0.

XXIII. ULSTER.—*Banbridge*, *Milltown*. R 1·47 in. above the average of 45 years.

## JUNE.\*

## ENGLAND.

I. LONDON.—*St. Pancras, Camden Square*. An extremely ungenial and harsh month, with an abnormal amount of cloud and great want of warmth and sunshine. The R, although falling on an excessive number of days, was normal in amount. Mean temp.  $58^{\circ}0$  or  $2^{\circ}4$  below the average. Duration of sunshine 146.5 hours, and of R 31.0 hours. Mean amount of cloud at 9 a.m. 8.2. R .27 in., or 12 per cent., below the average of 50 years.

II. SOUTH EASTERN COUNTIES.—*Warlingham*. Cheerless, unseasonable weather, with a marked absence of sunshine. Mean temp  $54^{\circ}8$ .—*Epsom*. Cool and cloudy, with much wind. Temp. reached  $70^{\circ}$  on 3 days only, and the mean temp. was only  $57^{\circ}7$ .—*Wallington*. The duration of sunshine was 150.3 hours (Jordan), the lowest ever recorded. Mean temp.  $57^{\circ}0$ .—*Tenterden*. Mostly dull, cold and showery. Temp. exceeded  $70^{\circ}$  on one day only. Duration of sunshine 180 hours.—*Folkestone*. Mean temp.  $55^{\circ}4$  or  $3^{\circ}3$  below the average.—*East Grinstead*. R .58 in. below the average of 17 years.—*Maidenhead*. Gloomy, squally and wet. Duration of sunshine 127.1 hours.

III. SOUTH MIDLAND COUNTIES.—*Haileybury*. Cool and gloomy, with very little sun, and mean temp.  $56^{\circ}1$ . No great amount of R, but a maximum amount of discomfort.—*Harpenden, Rothamsted*. Showery, cold and dull, with mean temp.  $2^{\circ}$  lower, and duration of sunshine 43 hours less, than the average.—*Goring*. Remarkable for excessive R, low temp., continuous winds, and an almost total absence of summer conditions.—*Woburn, Milton Bryant*. Dull and sunless, with mean temp.  $53^{\circ}7$ . All crops suffering from lack of sunshine.

IV. EASTERN COUNTIES. — *Dunmow*. Duration of sunshine 171.9 hours. Mean temp. about  $1^{\circ}5$  below the average.—*Copdock*. Cold, dull and cheerless, with S.W. winds prevailing. Duration of sunshine 123 hours, and mean temp.  $56^{\circ}4$ .

V. SOUTH WESTERN COUNTIES.—*Yatesbury*. Almost sunless, with mean temp.  $54^{\circ}2$ , or about  $2^{\circ}5$  below the average. Disastrous weather for hay and fruit.—*Wilcot*. R 1.23 in. above the average of 20 years. Said by farmers to be the worst June for nearly 50 years.—*Tavistock, Whitchurch*. Wet, cold and foggy. Mean daily temp.

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\* See also *Met. Mag.*, July, 1907, pp. 107, 112, 113, 121.

varied from  $49^{\circ}\cdot7$  on 3rd to  $55^{\circ}\cdot9$  on 9th, and the shade max. rose to or above  $60^{\circ}$  on 6 days only.—*Edington*. The most boisterous, rainiest, and most inclement June on record. The low temperature, want of sun, and constant R not only impeded but nearly ruined the early hay harvest.

VI. WEST MIDLAND COUNTIES.—*Bishops Castle*. Not a good word for the month except that it was a “dripping June” to the fullest.—*Mayfield House* [*Ashbourne*]. Very wet with frequent TSS. Duration of sunshine 122·5 hours, and mean temp. only  $53^{\circ}\cdot4$ .

VII. NORTH MIDLAND COUNTIES.—*Buxton*. R 4·68 in. above the average, making this the wettest June on record with the exception of 1882 when 8·42 in. of R fell. Duration of sunshine 133·2 hours, or 38·2 hours below the average. Mean temp.  $51^{\circ}\cdot0$ , or  $3^{\circ}\cdot6$  below the average.

VIII. NORTH WESTERN COUNTIES.—*Chatburn*. The wettest June on record, the R being 5·61 in. above the average of 18 years.—*Macclesfield*. R 2·62 in. above the average, the heaviest June fall since 1882. Mean temp.  $52^{\circ}\cdot7$ , or  $3^{\circ}\cdot6$  below the average.—*Blackpool*. An unseasonable, cool and unsettled month, remarkable for its heavy R, and deficiency of sunshine. Mean temp.  $3^{\circ}\cdot4$  below the average, and the lowest since observations commenced in 1885. Duration of sunshine 149·7 hours, or 42·6 hours below the average of 20 years.—*Hampson-in-Ellel*. An extraordinarily heavy R. The sun was seldom visible, and all vegetation was starved by the cold.—*Lancaster*. Old residents say that this was the coldest and rainiest June for 50 years.—*Broughton-in-Furness*. The wettest June since the record was commenced in 1872. Dull and cold, the mean temp. being  $5^{\circ}$  below the average.

IX. YORKSHIRE.—*Langsett Moor*. Unusually cold, and the wettest June for at least 24 years.—*Wharfedale*, *Oughtershaw Hall*. R much above, and temp., much below, the average. The ash was not in full leaf at the end of the month.—*East Layton Hall*. Wet and cold, great damage being done to all the crops, and everything being late owing to the absence of sunshine.

XI. WALES.—*St. Asaph*. Wet, dull and cold throughout. A series of depressions prevailed at short intervals until 26th when the bar. rose steadily and N. and E. winds set in with further showers.—*Snowdon*. By far the wettest June yet recorded on the Snowdon range, the average *daily* R at Llyn Llydaw being over 1 inch.

## SCOTLAND.

XII. SOUTHERN COUNTIES.—*Dalry*. Unusually cold and wet throughout. The R, although not very heavy, was almost continuous.—*Dumfries*. The wettest June in the 48 years' record. The winds, which generally accompanied the heavy R, helped to further the general havoc wrought among fruit and flowers. Farming prospects were deplorable, the oat crop being yellow and sickly and a large area of turnip land remaining unsown.

XV. WEST MIDLAND COUNTIES.—*Buchlyvie*. R 1·72 in. above the average of 18 years.

XVIII. NORTH WESTERN COUNTIES.—*Bendampth*. The wettest and coldest June in the memory of the oldest inhabitants.—*Inverpolly*. The wettest June in this locality for at least 70 years.

## IRELAND.

XX. MUNSTER.—*Broadford*. R 1·21 in. above, and rain days 11 above, the average for 22 years.

XXI. LEINSTER.—*Clongowes Wood College*. Considerable R and a very dark month, having no less than 17 days overcast.—*Ballybrack*. R ·57 in. below the average of 30 years. Vegetation was backward owing to the low temp. which prevailed throughout the month.—*Rathmines*. The worst June on record. Gloom, cold and R prevailed throughout, and only on two days was there any continued sunshine. The mean temp., 53°·8, was the lowest recorded for June.—*Lambay*. Cold, wet and windy weather. Hardly recognisable as summer.

XXII. CONNAUGHT.—*Ballymote*. Wet and cold with only two rainless days. During the last week H fell on 6 consecutive days, on one occasion taking the form of thin splinters of ice, mostly triangular in shape.—*Markree*. The wettest June on record. R on 29 days and frequent H and sleet. Temp. and duration of sunshine both below the average.

XXIII. ULSTER.—*Killeshandra*. Coldest and wettest June for some years. Strawberries were quite unripe by 30th, and potatoes were hardly formed. Meadows and all crops were late and generally poor.—*Banbridge, Milltown*. R 2·11 in. above the average of 45 years.—*Lough Swilly*. An atrocious June; the wettest for 20 years, the R being at least three times the average.

## JULY.\*

## ENGLAND.

I. LONDON.—*St. Pancras, Camden Square*. Cool and cloudy throughout; the max. shade temp. touched  $80^{\circ}$  on one day only, the 15th, and failed to reach  $70^{\circ}$  on 17 occasions. Mean temp.  $60^{\circ}\cdot 1$ , or  $3^{\circ}\cdot 2$  below the average. Duration of sunshine 162·6 hours, and of R 23·8 hours. R  $\cdot 38$  in., or 16 per cent., below the average of 50 years.

II. SOUTH EASTERN COUNTIES.—*Abinger Hall*. Local TSS were frequent in the first part but a good hay time followed from 10th to 21st. Frequent showers and unsettled weather were experienced in the latter part.—*Warlingham*. The coldest July for 15 years. Mean temp.  $57^{\circ}\cdot 5$ .—*Wallington*. The mean temp.,  $59^{\circ}\cdot 2$ , was the lowest in July since 1888. Duration of sunshine, 162·4 hours (Jordan), the smallest since 1890.—*Tenterden*. Showery and cold until 10th, then dry and fairly sunny weather—good for hay-making. The last 10 days were dull with some showers. Duration of sunshine 186 hours.—*Folkestone*. Mean temp.  $57^{\circ}\cdot 1$ , or  $5^{\circ}\cdot 1$  below the average.—*East Grinstead*. R 1·31 in. below the average of 17 years.—*Chale*. The first 10 days were stormy and showery, with low bar. Then came a period of equal length without R and with brilliant sunshine but with a continuance of the low temp. This was terminated by a TS, and the last part of July was varied by sun, R and fogs.—*Maidenhead*. Duration of sunshine 155·7 hours. Mean temp.  $57^{\circ}\cdot 8$ .

III. SOUTH MIDLAND COUNTIES.—*Harpenden, Rothamsted*. Mean temp.  $4^{\circ}\cdot 0$  below the average, and duration of sunshine 58 hours less than the average.—*Throcking*. Mean temp.  $56^{\circ}\cdot 2$ , or  $4^{\circ}\cdot 1$  below the average of 25 years, and the lowest in the record.—*Goring*. The absence of summer conditions continued, there being but little sunshine and no heat. Much hay was spoilt, and apples, pears and plums hardly seemed to grow.—*Amphill, Higham Bury*. R  $\cdot 76$  in. below the average of 16 years.

IV. EASTERN COUNTIES.—*Copdock*. Dull, cheerless days, but little R except on 2nd and 10th. Mean temp. only  $57^{\circ}\cdot 8$ .

V. SOUTH WESTERN COUNTIES.—*Weymouth*. Duration of sunshine 245·3 hours. Mean temp.  $59^{\circ}\cdot 4$ .—*Tavistock, Whitchurch*. Cold, damp and variable weather, with average R. Mean daily temp. varied from  $50^{\circ}\cdot 6$  on 3rd and 8th to  $68^{\circ}\cdot 0$  on 17th. The shade max. rose to or above  $70^{\circ}$  on 9 days. N.W. wind was most frequent.—*Exeter*.

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\* See also *Met. Mag.*, August, 1907, pp. 130, 145.

Showery, cold weather prevailed during the first and last weeks, but summer conditions were experienced in the middle.—*Edington*. Dark, dismal and unsettled, excepting the third week, which produced some remarkably brilliant weather with high temp.—*Mells*. The coldest July since 1888. The temp. rose to 70° or above on 8 days only.

VI. WEST MIDLAND COUNTIES.—*Charlton Kings*. The wettest July for 19 years. Most of the R fell during two TSS on 21st and 22nd, when much land was flooded.—*Hoar Cross*. Duration of sunshine 160 hours.—*Mayfield House* [*Ashbourne*]. Duration of sunshine 144 hours. Mean temp. 55°·0.

VII. NORTH MIDLAND COUNTIES.—*Louth*. R 1·37 in. below the average of 35 years.—*Grimsby*. Exceptionally cold and dull. Very little sunshine and generally cheerless. With the exception of a few days in the middle, the weather was like that of October.—*Worksop*, *Hodsock Priory*. Dull and cold. With the exception of 1888 and 1892, the mean temp. and the duration of sunshine were the lowest recorded in July.—*Buxton*. Duration of sunshine 147·4 hours. Mean temp. 54°·1.

VIII. NORTH WESTERN COUNTIES.—*Macclesfield*. Showery, excepting for the week ending on 20th, which was followed by a series of violent TSS with unusually vivid L.

X. NORTHERN COUNTIES.—*Alston*. The first and last parts of the month were dull and cold, but the intervening period was very fine.

XI. WALES.—*St. Asaph*. Showery and cold with the exception of 11 days from 10th to 20th, which were hot and bright.

#### SCOTLAND.

XIII. SOUTH EASTERN COUNTIES.—*Musselburgh*. Except from 14th to 25th the weather was wet and unseasonable. The shade max. reached 70° or more on 7 days only.

XV. WEST MIDLAND COUNTIES.—*Kilsyth*. Cold and wet conditions predominated until 14th when a spell of splendid weather set in lasting till 26th, after which the weather was changeable.

XVI. EAST MIDLAND COUNTIES.—*Balquhiddier*. Cold and wet until 13th when a decided change for the better set in. The subsequent warmth brought all crops up to the usual standard although everything was late previously.

#### IRELAND.

XX. MUNSTER.—*Ballingarry*. Cold during the first half, then 10

days of unusual heat, the shade max. exceeding  $80^{\circ}$  on 17th, 18th and 19th.

XXI. LEINSTER.—*Ballybrack*. R  $\cdot 63$  in. below the average of 30 years.—*Rathmines*. The cold and gloomy weather of June continued until 11th when the lowest temp. ever recorded in July was registered,  $38^{\circ} \cdot 7$ . After this the only week of real summer occurred. General westerly conditions prevailed during the last week. Mean temp.  $58^{\circ} \cdot 5$ .

## AUGUST.\*

### ENGLAND.

I. LONDON.—*St. Pancras, Camden Square*. Another month of low temp., the mean being  $60^{\circ} \cdot 8$ , or  $1^{\circ} \cdot 3$  below the average. The max. temp. was low throughout, on no occasion reaching  $80^{\circ}$ , and being below  $70^{\circ}$  on 13 days. Unsettled weather prevailed during the third week, with T at times. Duration of sunshine 149·7 hours and of R 27·3 hours. R  $\cdot 39$  in., or 17 per cent., below the average of 50 years.

II. SOUTH EASTERN COUNTIES.—*Wallington*. Duration of sunshine 164·1 hours (Jordan), or 34·0 hours below the average. Mean temp.  $60^{\circ} \cdot 5$ , or  $1^{\circ} \cdot 2$  below the average.—*Tenterden*. Duration of sunshine 190 hours (Jordan).—*Folkestone*. Mean temp.  $60^{\circ} \cdot 1$ , or  $2^{\circ} \cdot 3$  below the average.—*Hailsham*. The only summer month with any summer weather, the last 12 days being splendid.—*Totland Bay*. R 1·21 in. below the average, and duration of sunshine 16 hours below the average.—*Maidenhead*. Duration of sunshine 151·3 hours. Mean temp.  $58^{\circ} \cdot 9$ .

III. SOUTH MIDLAND COUNTIES.—*Harrow Weald*. R  $\cdot 91$  in. below the average of 15 years.—*Harpenden, Rothamsted*. R  $\cdot 85$  in. below the average. Mean temp.  $1^{\circ} \cdot 6$ , and duration of sunshine 32 hours, below the average.—*Goring*. Remarkable for low temp. and absence of sunshine. The sky was almost always overcast. Autumn showed itself very distinctly during the third week, the leaves beginning to turn, and the robin being the only bird audible.

IV. EASTERN COUNTIES.—*Dunmow*. Duration of sunshine 176·4 hours.—*Copdock*. Another cloudy month, with many wet days, but yet with deficient R. Harvest operations were much interrupted in the middle, but a fine week at the close helped matters. Mean temp.  $59^{\circ} \cdot 8$ .

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\* See also *Met. Mag.*, September, 1907, p. 165.



V. SOUTH WESTERN COUNTIES.—*Weymouth*. Duration of sunshine 198·5 hours. Mean temp. 60°·5.—*Beaminster*. R 1·11 in. below the average for 33 years.—*Ashburton, Druid House*. R 2·15 in. below the average of 42 years.—*Tavistock, Whitchurch*. Cold, cloudy and damp, with fog on no less than 14 days. Mean daily temp. varied from 60°·5 on 13th to 51°·3 on 21st.—*Launceston*. Dry, but unseasonably cold. R 1·34 in. below the average.

VI. WEST MIDLAND COUNTIES.—*Winchcombe*. Unusually wet and cold. The amount of sunshine was far below the average, and all crops were late.—*Cirencester*. Cheerless, unsummerlike weather prevailed. Almost constant slight R, with very strong winds and cold nights.—*Hoar Cross*. The brightest and best month of the year. Duration of sunshine 187·5 hours.—*Mayfield House [Ashbourne]*. Wet and cold, with frequent R and westerly winds throughout. Duration of sunshine 158·5 hours.

VII. NORTH MIDLAND COUNTIES.—*Louth*. R 1·44 in. below the average of 35 years.—*Buxton*. Wet and “very unholidaylike.” Duration of sunshine 137·4 hours. Mean temp. 54°·5.

VIII. NORTH WESTERN COUNTIES.—*Macclesfield*. R 1·46 in. above the average of 56 years. Temp. was low and only once exceeded 70°. The absence of sunshine was very marked.—*Chatburn*. R ·51 in. below the average of 18 years.—*Blackpool*. Cool, dull and very changeable, with frequent falls of R during the first half of the month, but from the 17th the weather was brighter, and the R well below the average. Duration of sunshine 155·9 hours, or 9·1 hours below the average of 25 years. Mean temp. 57°·0, or 2°·4 below the average of 35 years. Westerly winds predominated.

IX. YORKSHIRE.—*Goldsborough Hall*. Dull and unsettled throughout, with strong S. and S.W. winds. Only on one day did the shade max. reach 70°.

X. NORTHERN COUNTIES.—*Brampton*. R ·70 in. below, and rain days 3 above, the average of 21 years.

#### SCOTLAND.

XIII. SOUTH EASTERN COUNTIES.—*Musselburgh*. The first half was dull, with 6 rain days from 11th to 16th, during which 2·13 in. of R fell. The second half was drier, with a fair amount of sunshine.

#### IRELAND.

XX. MUNSTER.—*Cork*. R ·52 in. below the average. Mean temp.

57°·2.—*Broadford*. R ·67 in. below, and rain days 5 above, the average of 22 years.

XXI. LEINSTER.—*Ballybrack*. R 1·19 in. below the average of 30 years.

XXIII. ULSTER.—*Banbridge, Milltown*. R ·72 in. below the average of 45 years.

## SEPTEMBER.\*

### ENGLAND.

I. LONDON.—*Fulham, Edith Road*. Beautiful weather. Bright sunshine daily and no R after 5th. R 1·24 in. below the average.—*St. Pancras, Camden Square*. After the first week which was somewhat unsettled, occurred the finest spell of the summer with warm sunny days, and, except on 25th, no R from 7th to 29th. The mean temp. was 58°·5, or 0°·8 above the average. The shade max. reached 80°·1 on 25th. Duration of sunshine 149·3 hours, and of R 12·2 hours. R 1·59 in., or 72 per cent., below the average of 50 years.

II. SOUTH EASTERN COUNTIES.—*Warlingham*. A month of remarkably fine weather in contrast to the dull, dreary and sunless so-called summer which preceded it. Gardens and flowers here were still in perfect beauty, and there was no frost.—*Wallington*. Mean temp. 58°·3, or 0°·8 above the average of 20 years. In that period there were only 3 Septembers with less R. Duration of sunshine 152·6 hours (Jordan). Much early morning fog.—*Tottingworth Park*. In the first days one almost lost heart fighting with weeds in the garden but thanks to the finest September ever remembered they were conquered. There were no gales, no floods and no worries at all, except squirrels and mice. Plums were splendid and pears abundant, but apples disappointing. Corn yielded about 40 bushels per acre, but stood too long in the stook to be good.—*East Grinstead*. R 1·61 in. below the average of 17 years.—*Chale*. After the first week the remainder was very sunny, unusually quiet and free from the gales so common at this season. The wind was usually easterly, sometimes veering with the sun during the day and going back to E. at night.—*Ryde*. The absolute drought from 7th to 30th inclusive had only once been equalled for length during 21 years, *i.e.*, May 25th to June 17th, 1899.—*West Dean*. A fine month with very deficient R, great variations of temp., and destructive frosts throughout.—*Broughton*. Absolute

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\* See also *Met. Mag.*, October, 1907, pp. 167, 178, 185.

drought for 23 days. The Wallop Brook ceased to run, and over a considerable length of it all the fish died.—*Hartley Wintney*. The loveliest month of the year and the only summer month.—*Maidenhead*. Overcast with R till 6th; bright sunshine during the day with fog or mist at night from 7th to 24th, then cloudy, misty and showery till the end. Mean temp.  $54^{\circ}9$ . Duration of sunshine 141 hours.

III. SOUTH MIDLAND COUNTIES.—*Harrow Weald*. R 1.32 in. below the average of 15 years.—*Haileybury*. Owing to the large amount of sunshine the mean max. temp.,  $67^{\circ}6$ , was the highest of any month in 1907. Mean temp.  $58^{\circ}2$ . Absolute drought from 6th to 24th, inclusive.—*Goring*. The month was remarkable for an unbroken period of warm, sunny weather, with high temp. From 7th to 24th the days were almost cloudless, but after 12th there were fogs or thick mists at night.—*Pitsford*. R 1.94 in. below the average. Mean temp.  $61^{\circ}7$ .—*Amphill*, *Higham Bury*. R .99 in. below the average of 16 years.—*Thorney*, *Wryde*. A remarkable month with 17 days of absolute drought from 8th to 25th, which enabled farmers to secure the harvest in good condition after a dripping summer. The autumn was the gayest ever remembered for roses and dahlias.

IV. EASTERN COUNTIES.—*Copdock*. A brilliant month, with anti-cyclonic conditions practically throughout and very little wind. Duration of sunshine 201.6 hours, of which 175 hours occurred between 8th and 28th. The harvest was late but was got in in excellent condition. Owing to the three weeks' drought the water in springs fell to a dangerously low level and many wells had to be deepened.

V. SOUTH WESTERN COUNTIES.—*Tavistock*, *Whitchurch*. Warm, dry and fine. Mean temp.  $58^{\circ}5$ , the highest since 1898, and higher than that of July or August. The mean min. was the highest in 15 years' observations. The mean daily temp. varied from  $51^{\circ}3$  on 4th to  $64^{\circ}0$  on 25th.—*North Cadbury*. By far the best month of the summer. The first six days were showery, but a remarkable anti-cyclone prevailed from 6th to 24th, and not a drop of R fell from 7th to 28th, inclusive.—*Edington*. Very fine and dry, though without any great brilliance or heat, and the only month with any claim to summer. The fine weather was the saving of the harvest.

VI. WEST MIDLAND COUNTIES.—*Stoke Bishop*. No R fell after 5th, and the duration of sunshine was much above the average. One of the best harvesting months on record.—*Cirencester*. The first week was wet, but the remainder was gloriously hot, sunny and dry,

enabling a heavy harvest to be secured. Absolute drought from 8th to 29th inclusive.—*Wolstaston Rectory*. A dry, pleasant month; the harvest concluded. The hot weather of the closing days of August continued, but came to an end with remarkable suddenness on the 16th.—*Tenbury, Rochford*. R 1·60 in. below the average.

VII. NORTH MIDLAND COUNTIES.—*Mansfield*. Beautifully fine and dry, with absolute drought from 8th to 25th inclusive. Harvest was practically finished. The crops were much above the average both in yield and quality.—*Louth*. R 2·04 in. below the average of 35 years.—*Grimsby*. A beautiful month, with the most perfect weather ever remembered; bright and clear almost throughout, with little wind, but remarkably fresh and bracing air.—*Buxton*. R 3·26 in. below the average. Duration of sunshine 190·3 hours, or 61·1 hours above the average, and 50 hours more than that of August, 1907. Mean temp. 53°·4, or 0°·8 above the average.

VIII. NORTH WESTERN COUNTIES.—*Chatburn*. R 2·20 in. below the average of 18 years.—*Broughton*. The lowest R and highest mean temp. in September for 10 years, and, with one exception, the lowest R for 34 years.

IX. YORKSHIRE.—*Hull*. Exceptionally fine throughout and almost continuously mild, with many calm, clear nights.

X. NORTHERN COUNTIES.—*Lilburn*. Dry and calm from 4th, with prevalent fog. Harvest was late and there was much difficulty in securing crops for want of wind to dry the corn.—*Brampton*. The driest September in the 21 years' record. R 2·94 in., and rain days 11, below the average.

#### SCOTLAND.

XV. WEST MIDLAND COUNTIES.—*Ardnadam*. A dry and beautiful month, with light S.E. winds during the latter half bringing smoke-haze and dullness.

XVI. EAST MIDLAND COUNTIES.—*St. Andrews*. The finest month of the year; the max. temp., 77° on 3rd, having been exceeded twice only during the summer.

#### IRELAND.

XXI. LEINSTER.—*Rathmines*. The only really fine month of the year. A large anticyclone prevailed from 6th, and there was absolute drought from 15th to 30th inclusive.

XXII. CONNAUGHT.—*Ballybrack*. R 1·61 in. below the average of 30 years. Absolute drought from 6th to 25th inclusive. Both day and night temp. was high, and the duration of sunshine was above the average. There was no autumnal change of foliage at the end.

XXIII. ULSTER.—*Ranbridge, Milltown*. R 1·81 in. below the average of 45 years.

## OCTOBER.\*

### ENGLAND.

I. LONDON.—*St. Pancras, Camden Square*. Frequent R together with a preponderance of cloud and gloom, and absence of sunshine. The mean temp. was 51°·7, or 1°·9 above the average, chiefly owing to the absence of low minima. Duration of sunshine 73·9 hours, and of R 52·8 hours. R ·15 in., or 6 per cent., below the average of 50 years.

II. SOUTH EASTERN COUNTIES.—*Haslemere*. R fell on 26 consecutive days from 5th to 30th, the total for the month being 8·44 in., or ·51 in. less than the greatest on record, in 1903. Mean temp. 47°·9. —*Warlingham*. Continuously showery, with much atmospheric disturbance, but some sunny intervals.—*Epsom*. Very wet, R falling on no less than 28 days, but on the whole genial with almost complete absence of frost. Mean temp. 51°·2.—*Wallington*. R ·58 in. above the average of 20 years, the number of rain days being the greatest in that period. Mean temp. 51°·4, or 2°·0 above the average. Duration of sunshine 103·3 hours (Jordan), being 5·5 hours above the average.—*Tenterden*. Wet and deficient in sunshine but fairly warm, the temp. exceeding 60° on 14 days. Duration of sunshine 96·7 hours (Jordan).—*Sellindge*. Remarkable for heavy R and for frequent and violent gales.—*Tottingworth Park*. R 7·31 in., but bad as the month was, this was a land of Goshen compared with other parts.—*East Grinstead*. R 1·42 in. above the average of 17 years.—*West Dean*. Wet and stormy, with low bar. throughout and R more than double the average.—*Maidenhead*. Overcast, misty and rainy till 9th, squally and thundery with gales and R from 10th to 20th, and overcast, rainy and foggy till 31st. Mean temp. 48°·5. Duration of sunshine 73·5 hours.

III. SOUTH MIDLAND COUNTIES.—*Harrow Weald*. R 1·47 in. below the average of 15 years.—*Oxford*. R 2·36 in. above the average of

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\* See also *Met. Mag.*, November, 1907, pp. 189, 207, and December, 1907, p. 218.

92 years.—*Pitsford*. R 1·18 in. above the average. Mean temp.  $46^{\circ}\cdot8$ .—*Amphill, Higham Bury*. R 1·26 in. above the average of 16 years.—*Thorney, Wryde*. Damp and sunless; very foggy in the last week. The wet weather prevented later crops of white corn and beans from being secured in good condition.

IV. EASTERN COUNTIES.—*Copdock*. The month maintained the character of 1907, being dull and damp, with a large number of rain days but an entirely disproportionate excess in the total R, which was not materially above the average. Duration of sunshine 81·4 hours.

V. SOUTH WESTERN COUNTIES.—*Alderbury*. R ·49 in. beyond the previous record, 8·97 in., in October, 1903.—*Wilcot*. R 3·81 in. above the average of 20 years.—*Winterbourne Steepleton*. The R, 10·12 in., was greater by 1·21 in. than that of any month since the record began in 1893.—*Tavistock, Whitchurch*. Wet, damp and rather cold, with very low bar. and little fog. R was measured on every day except the last two, making, from September 30th, the longest rain spell in 10 years' observations, except a similar period ending on January 23rd, 1899. The mean daily temp. varied from  $57^{\circ}\cdot9$  on 6th to  $43^{\circ}\cdot4$  on 16th.—*Rousdon*. The wettest October in 25 years. R 7·62 in.

VI. WEST MIDLAND COUNTIES.—*Clifton*. The long drought of September broke up on October 1st. From 8th to the end there were only three days without R, the total being 1·39 in. above the average.—*Ross*. By far the wettest October in the record. The river Wye was in flood (12 feet) at end.—*Ledbury, Putley Court*. The heaviest R for any month in 23 years, yet owing to the parched state of the land the ground was not sodden until the end of the month.—*Leominster*. R 8·52 in., making the wettest month during the record since 1869.—*Mayfield House [Ashbourne]*. Mean temp.  $47^{\circ}\cdot1$ . Duration of sunshine 78·5 hours.—*Tenbury, Rochford*. Very dull and wet, the R being 3·06 in. above the average, and the greatest in any month for 12 years.

VII. NORTH MIDLAND COUNTIES.—*Louth*. R ·99 in. above the average of 35 years.—*Buxton*. Wet, with many rain days though the falls were often small. Mean temp.  $46^{\circ}\cdot0$ . Duration of sunshine 94·0 hours (Jordan), or 12·0 hours below the average.

VIII. NORTH WESTERN COUNTIES.—*Blackpool*. Mild and unsettled, yet bright sunshine was fairly plentiful. Mean temp.  $49^{\circ}\cdot2$ , or  $0^{\circ}\cdot2$  above the average. Frost was recorded in shade on one night, and upon grass on 7 nights. Duration of sunshine 101·8 hours, or

9·8 above the average. R ·09 in. above the average, but 3·66 in. fell on 14 days.

IX. YORKSHIRE.—*Upper Midhope*. Very wet, the R having been exceeded twice only in any month during 13 years.—*Harrogate*. Dull, with little sunshine, and an excessive amount of R, the total being 7·52 in., or 4·20 in. above the average of 35 years. Duration of sunshine 75·6 hours, or 19·4 below the average.—*East Layton*. Sunless and wet. Much damage was done to crops, and half the corn was still in the fields at the end of the month with no probability of getting it in.

X. NORTHERN COUNTIES.—*Pawston [Coldstream]*. Constantly wet. Corn cut at the beginning of the month was still rotting in the fields at the end.

XI. WALES.—*Coomb*. R 9·45 in.; the land was like a bog.—*Carmarthen*. Gloomy, wet and miserable, R being measured on every day. Very stormy from 15th to 20th. There was little frost, and foliage remained later than usual.—*Aberystwyth, Gogerddan*. Heavy R, high winds and hardly any sunshine; low night temp. generally.

#### SCOTLAND.

XII. SOUTHERN COUNTIES.—*Cargen [Dumfries]*. Absolutely no progress was made with harvest work during the month, and about half the crops remained still in the fields, much damaged.—*Lincluden House*. Exceptionally wet, the rivers being almost constantly in flood and the harvest very late.

XIII. SOUTH EASTERN COUNTIES.—*Corstorphine House*. Exceptionally heavy R. Over 1·00 in. was recorded on 6th, 8th, 9th and 15th. On the latter day the fall, 2·95 in., was the heaviest ever recorded here in one day.—*Bathgate*. The weather throughout was very melancholy. Corn cut at the end of September was still out in the fields at the end of October, soaking wet and sprouting.

XIV. SOUTH WESTERN COUNTIES.—*Muirkirk, Glenbuck*. R 10·10 in., the heaviest since observations commenced. Harvest operations were very backward.

XVI. EAST MIDLAND COUNTIES.—*St. Andrews*. Very wet, but with less wind than usual in October. Much corn was still standing in the fields at the end of the month, some of it worthless.—*Perth*. Absence of wind and consequent want of drying power in the air almost ruined the harvest.—*Dundee, Balruddery*. Very dull and wet, with great want of wind and sun. Duration of sunshine 64·7 hours.

XVII. NORTH EASTERN COUNTIES.—*Monymusk*. Very wet. At the end crops were not all cut, hardly any had been carried, and much was spoiled.

## IRELAND.

XXI. LEINSTER.—*Ballybrack*. Damp, with high temp., a few slight frosts and little sunshine. The R was 2·69 in. above the average of 30 years, and it was the only month in that period with 30 rain days.—*Ruthmines*. Absolutely the worst month remembered. Although the total R had often been exceeded the number of rain days, 29, was only once reached. Gales were few and not severe, and the temp. was about normal.—*Balbriggan*. R 1·65 in., and rain days 8, above the average of 14 years.

XXIII. ULSTER.—*Banbridge*, *Milltown*. R 1·09 in. above the average of 45 years.

## NOVEMBER.\*

### ENGLAND.

I. LONDON.—*St. Pancras*, *Camden Square*. Mild, with practically no frost but in other respects normal, and a typical November. Fog was not extremely frequent, but occasionally very dense, particularly on 20th. Mean temp. 45°·6, or 2°·6 above the average. Duration of sunshine 30·6 hours, and of R 43·6 hours. R ·14 in., or 6 per cent., below the average of 50 years.

II. SOUTH EASTERN COUNTIES.—*Warlingham*. R ·70 in. below the average of 15 years. Mean temp. 44°·2.—*Wallington*. Both day and night temp. were high, the mean being 45°·1, or 1°·1 above the average. Duration of sunshine 39·4 hours (Jordan), or 21·5 hours below the average. R ·59 in. below the average of 20 years.—*Sellindge*. Pleasant weather for the most part, with much sunshine. The first three weeks were practically rainless, but the fourth made up for the deficiency.—*East Grinstead*. R 1·02 in. below the average of 17 years.—*Totland Bay*. Mean temp. 47°·7. The duration of sunshine was less than in any November yet recorded.—*Hartley Wintney*. Dark and gloomy throughout, with only slight frost. Calm days with fog prevailed for the first fortnight, the third week was excessively wet and the last week very stormy.—*Maidenhead*. Overcast, cloudy and

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\* See also *Met. Mag.*, December, 1907, p. 227.



foggy till 11th, and afterwards cloudy, with heavy R. Mean temp.  $42^{\circ}3$ . Duration of sunshine 41·7 hours.

III. SOUTH MIDLAND COUNTIES.—*Haileybury*. The first half was very dry, but the last fortnight yielded 2·15 in. of R. Winds were variable and light, and there was no gale, but a good deal of fog and gloomy weather. Mean temp.  $44^{\circ}1$ .—*Hedsor*. Generally damp and gloomy, with average R. Foggy about 20th and stormy and unsettled from 25th to 28th.—*Cranfield*. Dull and wet, not cold but very damp. Work on heavy lands was much hindered.

IV. EASTERN COUNTIES.—*Copdock*. As objectionable a month as could be imagined, with but one redeeming feature—the extraordinary amount of colour left in the garden, where chrysanthemums and even many summer annuals were lovely.

V. SOUTH WESTERN COUNTIES.—*Weymouth*. Mean temp.  $48^{\circ}2$ . Duration of sunshine 62·2 hours.—*Ivybridge*. The R was ·56 in. above the average of 18 years, but fell mostly at night.—*Tavistock*, *Whitchurch*. Rather warm and damp. The mean daily temp. varied from  $55^{\circ}4$  on 2nd to  $38^{\circ}0$  on 24th.

VI. WEST MIDLAND COUNTIES.—*Great Witcombe*. R ·81 in. below the average.—*Mayfield House* [*Ashbourne*]. Unsettled, with much cloud, and heavy R towards the close. Duration of sunshine 49·8 hours. Mean temp.  $41^{\circ}2$ .

VII. NORTH MIDLAND COUNTIES.—*Buxton*. Duration of sunshine 59·5 hours, being much below the average. There were 9 sunless days and 8 others with less than one hour of sunshine.

VIII. NORTH WESTERN COUNTIES.—*Blackpool*. Mild and generally fair till 15th, but afterwards colder and less settled, with frequent R. Mean temp.  $43^{\circ}5$ , or  $0^{\circ}1$  below the average. Duration of sunshine 59·9 hours, or 12·9 above the average.—*Broughton-in-Furness*. Fine and mild in the early part, many flowers being in bloom which are rarely seen in November. The temp. was above the average in the early part and below in the latter.

IX. YORKSHIRE.—*East Layton*. Dull and cold, with few fine days. A considerable amount of grain, quite spoiled, was still standing in the fields for want of a few dry days.

#### SCOTLAND.

XV. WEST MIDLAND COUNTIES.—*Buchlyvie*. R 1·00 in. below the average of 18 years.

XVII. NORTH EASTERN COUNTIES.—*Lynturk*. Harvest was generally finished only in the week ending on 23rd.—*Monymusk*. A very poor month for the country. Harvesting was concluded here on 14th.

### IRELAND.

XX. MUNSTER.—*Mitchelstown*. An unusually cold November. The first half was fine but cool, the latter very wet and cold.

XXI. LEINSTER.—*Ballybrack*. Damp and harsh, with some fine days in the middle.—*Rathmines*. Temp. slightly below, and R slightly above, the average. The atmosphere was generally almost saturated with moisture, and there was no drying weather, but a good deal of fog. Most of the R fell on 5 days—1st, and from 25th to 28th.

### DECEMBER.\*

#### ENGLAND.

I. LONDON.—*Fulham, Edith Road*. The wettest December since 1896. R 1·14 in. above the average, and mean temp. 2°·8 above.—*St. Pancras, Camden Square*. The most prominent feature was the absence of low temp.; the mean temp. was 42°·0, or 2°·8 above the average, and the mean shade min. 37°·6, or 3°·2 above the average. Heavy R fell during the second week, but the latter half of the month was generally dry although extremely sunless. Total duration of sunshine 23·4 hours, and of R 57·1 hours. R 1·68 in., or 80 per cent., above the average of 50 years. It was both absolutely and relatively the wettest month of the year.

II. SOUTH EASTERN COUNTIES.—*Haslemere*. R 1·36 in. above, and mean temp. 1°·9 above, the average.—*Godalming*. Very changeable, with every variety of winter weather. R and duration of sunshine both above the average.—*Frimley Green*. Heavy R in the first half, but in the last week piercing E. wind and frost. Until Christmas vegetation was but slightly affected by frost, and roses and other flowers remained.—*Nutfield Priory*. Remarkably mild, the temp. rising to 60° on 9th. L was seen every night from 4th to 10th.—*Epsom*. Remarkably rapid variations of temp., and heavy R till 25th. Afterwards cold, with E. wind and small range of temp. Mean temp. 41°·5.—*Wallington*. R ·69 in. above the average of 20 years. Mean temp. 42°·1, or 2°·9 above the average. Duration of sunshine 55·2 hours (Jordan), or 17·6 hours above the average.—*Tenterden*.

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\* See also *Met. Mag.*, January, 1908, p. 247.

Wet in the first half and generally warm till Christmas ; then dry and cold with E. winds. Duration of sunshine 63 hours (Jordan).—*East Grinstead*. R .76 in. above the average of 17 years.—*Totland Bay*. Duration of sunshine 56.2 hours, or 4.5 hours above the average. Mean temp. 2°·5 above the average. Total wind movement 8,965 miles.—*Hartley Wintney*. Rough and stormy for the first fortnight, followed by a week of heavy R from S.W. The last week was dry and bitterly cold, with a biting E. wind. Ozone was registered every day, with a mean of 5.3.—*Maidenhead*. Heavy R with gales till 14th, the Thames being in flood from that date till 19th. Fog and showers afterwards, followed by cold E. wind. Mean temp. 40°·1. Duration of sunshine 35 hours.

III. SOUTH MIDLAND COUNTIES.—*Harrow Weald*. R .93 in. above the average of 15 years.—*Haileybury*. S.W. winds and heavy R in the first half, and mild weather till 25th. The last 6 days were cold with E. wind and mean daily range of temp. 2°·4. Mean temp. 40°·4.—*Slough*. Mild weather till Christmas, roses being in flower up to that time. The floods in this district were highest on 16th. The land was very sodden by the continuous R.—*Woodstock, Hampton Poyle*. There were serious floods in the village in the middle of the month so that children were unable to get to school, and church services were much interfered with.—*Pitsford*. R 1.48 in. above the average. Mean temp. 38°·7.—*Amphill, Higham Bury*. R 1.35 in. above the average of 16 years.—*Cranfield*. Heavy R and floods hindered farming operations, especially wheat sowing.

IV. EASTERN COUNTIES.—*Copdock*. Wet during the early part, and dry and sunless after 17th. Of 39.2 hours of sunshine, only 3 hours occurred after that date. Practically no frost.

V. SOUTH WESTERN COUNTIES.—*Weymouth*, Mean temp. 45°·1. Duration of sunshine 43 hours.—*Ivybridge*. R 1.32 in. above the average of 19 years.—*Tavistock, Whitchurch*. Damp and rather warm, with low bar. and about average R. The mean daily temp. varied from 51°·2 on 19th to 29°·8 on 29th and 30th.—*North Cudbury*. Extremely wet till 13th, showery from 16th to 24th, then dry till 29th. The first 25 days were warm with 13 maxima above 50°, but in the last 6 days the temp. ranged from 30°·9 to 36°·5. Dense gloom in the last 4 days.—*Edington*. Until the 26th there was frequent R, with violent gales. The wettest, wildest and most tempestuous month of an inclement year. The torrential rains following a very

wet autumn produced the highest flood in the moors since the memorable season of 1894.

VI. WEST MIDLAND COUNTIES.—*Frampton Cotterell*. The wettest December since 1876.—*Cirencester*. Remarkably wet and wild, with some fierce gales till 14th. Mild, damp and quieter till Christmas, when a bitterly hard E. wind set in, with temp. decreasing daily till the end.—*Ross*. The first 13 days were wet, and slight R fell on many days in the latter half. Warm weather prevailed till 24th, after which it was cold, with much fog and darkness.—*Mayfield House* [*Ashbourne*]. The first three weeks were very wet, then dry, cold and heavily overcast till the end. Duration of sunshine 28·5 hours.

VII. NORTH MIDLAND COUNTIES.—*Wirksworth*. Damp and mild until Christmas, with little sun and no S. From 7th to 14th was very stormy. Dry N.E. wind with slight frost, frequent but trifling S and no sunshine from 26th to the end.—*Buxton*. Mean temp. 37°·5, or 1°·5 above the average. Duration of sunshine 28·6 hours, or 7·4 hours below the average. R 1·64 in. below, and rain days 4 above, the average.

VIII. NORTH WESTERN COUNTIES.—*Chatburn*. R 1·67 in. above the average of 18 years.—*Blackpool*. The early part was wet and unsettled, but except 19th and 20th the remainder was fair and dry, though dull. The temp. was above the average, except in the last week. The duration of sunshine was the smallest in December since 1903. R ·61 in. above the average of 30 years.—*Broughton-in-Furness*. Mild and wet till 22nd, with only two frosts and an occasional fine day. Dense fog on 23rd was followed by fine weather but with bitterly cold E. winds and a drop of about 10° in temp., till the end. Mean temp. 1°·0 above the average.

IX. YORKSHIRE.—*Goldsborough Hall*. Wet and unsettled, with little S and no severe frosts. The last week was very cold, with S.E. wind and max. shade temp. 33°.—*East Layton*. Wet and cold generally, and a bad finish to a bad year. In places grain was still being carted into the stackyards.

X. NORTHERN COUNTIES.—*Ilderton*. Mild and humid till 26th, after which S and H showers fell daily. It was very calm throughout and there was little frost.

XI. WALES.—*Carmarthen*. The first three weeks were wet and gloomy, but frost set in on 26th and the remainder was cold, dull and dark, except on 29th. The frost proved most valuable by enabling farmers to drive out manure without injury to the land.

## SCOTLAND.

XVI. EAST MIDLAND COUNTIES.—*Kilsyth*. Frost at the beginning and drizzling weather. It continued showery throughout except at the end when there was E. wind, frost and S.

## IRELAND.

XX. MUNSTER.—*Mitchelstown*. A remarkable combination of 18 frosts and 27 rain days. It was a very ungenial and changeable month, with much cold weather but little S.—*Darrynane*. The wettest December for at least 28 years.

XXI. LEINSTER.—*Ballybrack*. Damp, with little sunshine. R .20 in. below the average of 30 years.—*Rathmines*. From 16th to 21st the temp. ranged from 43°·3 to 54°·2, but from 27th to the end from 33°·3 to 38°·9.—*Balbriggan*. The first week was winterly with gales on 2nd and 4th, the second week milder with gales on 8th and 9th, and the third week still milder with R on six days. E. gales from 26th to 31st, with bitterly cold showers of H and S.

## OBSERVERS' NOTES ON THE YEAR, 1907.

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

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### ENGLAND AND WALES.

#### DIVISION I.—LONDON.

FULHAM, WEST KENSINGTON, EDITH ROAD.—A year of average temp. and no extremes. Only on one day, and that late in September, did the temp. reach 80°. The year was remarkable for a most lovely March and September, the summer months being cool and cloudy, though not wet. There were two absolute droughts, from 20th March to 4th April, 16 days, and from 6th to 24th September, 19 days; and a partial drought from 2nd January to 8th February, 38 days, with .33 in. of R.—*G. Searle*.

HAMPSTEAD, AKENSIDE ROAD.—The mean temp. was 48°·9, the absolute max. being 78°·6 on May 12th, and the min. 22°·1 on January 24th. No day in June, July or August had a max. temp. over 75°, although 76°·3 was the highest reading on September 25th. There was much fog in November, but little in any other month. An absolute drought of 19 days occurred in September.—*E. L. Hawke*.

ST. PANCRAS, CAMDEN SQUARE.—Compared with the average of the 50 years, 1858-1907, over which period the observations have now extended, the monthly rainfall of 1907 was uniformly, but seldom excessively, deficient. Two months only, April and December, had R above the average, but in eight of the remaining ten months, the deficiency was in each case less than 1·00 in. January and September were the driest months with deficiencies of 1·08 in. and 1·59 in. respectively, whilst the excess amounted to 1·58 in. in April and 1·68 in. in December. Owing chiefly to the dryness of the first three months, the cumulative divergence from the average was at no time positive; it fell to its lowest point, .68 in., at the end of April, and, except at the end of May, was otherwise always more than 1·00 in., reaching 3·60 in. at the end of October and 2·06 in. for the

whole year. A long spell of dry weather took place during January, and an absolute drought of 18 days' duration from September 7th to 24th, but apart from this the R was fairly evenly distributed, the most striking feature of the year being the great absence of heavy falls; no fall of .50 in. occurred until July 22nd, and during the whole year the max. daily fall was only .72 in. on December 12th, the smallest in any year since observations commenced, though closely followed by .75 in. in 1896. The number of rain days was rather large, exceeding the average in six months and being 14 in excess for the whole year. The duration of rainfall was fairly normal, the greatest deficiencies taking place in January (23.2 hours), February (14.6 hours) and September (13.2 hours), and the only excesses of note in April (37.0 hours) and December (16.5 hours). The duration for the year was 418.8 hours, or 6.4 above the average. The temp. during winter and spring was normal, except for a burst of prematurely summer-like weather during Easter week. The summer months were, however, excessively cold, and the last three months of the year as abnormally mild. The mean temp. of June, July and August was only 59°·6, or 2°·3 below the average, whilst that of October, November and December was 46°·4, or 2°·4 above the average. The former had been exceeded three times only for coldness during 50 years, the latter eight times only for warmth. During the summer the max. shade temp. rose to or above 80° on 3 days only, one occasion being as late as September 25th. Frosts occurred on 41 days in the screen and on 90 days on grass; the latest frost of the spring was on April 19th in the screen and on May 20th on grass, and the earliest of the autumn on November 16th in the screen and on November 11th on grass. The duration of sunshine was 1,217.0 hours; there were 79 sunless days. The most noteworthy feature was the great lack of sunshine during the summer months, of which July alone had more sunshine than had March, when the duration was 151.4 hours on 28 days.—*Hugh Robert Mill.*

## DIVISION II.—SOUTH EASTERN COUNTIES.

### SURREY.

HASLEMERE, HAZELHURST.—The general impression of 1907 is that it was unusually wet; but the year's total R comes out .70 in. below the average. There was more than the average in April, May, June, October and December. September was an especially dry

month, 18 consecutive days without R, leading to complaints of shortage of water. There was a considerable deficiency of sunshine during the summer months, R falling in the daytime rather than at night, and there being much more mist and misty R than usual. These three characteristics made an unpleasant summer, bad for outdoor life both of plants and persons. March was gloriously sunny, having 221 hours of sunshine. Want of sunshine in May, coupled with excessive R, prevented proper fertilization of the apple bloom, hence there was a poor crop, deficient in size. There was great deficiency in warmth. There were few evenings in the summer when the warmth of a fire was not appreciated, or the want of it felt. September was a beautifully fine month, with temp. of 70° and upwards on 9 days. December was very mild, roses and violets being out on Christmas day.—*T. P. Newman.*

HASLEMERE, COURTS HILL.—R 1·39 in. below the average of 34 years.—*J. W. Penfold*

WITLEY, THE MOUNT.—There was but little R before April in which month several violent TSS occurred, with S and H. The spring was cold and sunless, and, owing to the lateness of the summer, gardens and harvest were backward. The mildness of December enabled roses, pansies, stocks, etc., to be gathered at Christmas.—*J. H. Foster.*

CRANLEIGH COMMON, HOMEFIELD COTTAGE.—The total R and number of rain days differed but little from the values for 1906, although the months varied considerably. The summer temp. was much below the average and reached 70° on 6 days only in July and August.—*A. F. Jones.*

FARNHAM, SHORT HEATH LODGE.—Remarkable for the cold summer with frequent, but not heavy, R. Frosts were recorded in the screen on 84 days.—*Geo. Chrystie.*

LYDEN CROFT [EDENBRIDGE].—R 3·44 in. below the average of 16 years. Here, as a rule, years of "lean" R have followed years of "fat" R, and this is markedly true of 1907 which succeeded 4 years showing a mean fall of 32·68 in.—*C. Plunck.*

DORKING, FIR TOR.—The chief feature was the great lack of sunshine from the middle of May to September. Greenhouse strawberries failed to ripen for the first time in 30 years.—*F. Taylor.*

WARLINGHAM, EGREMONT.—R 2·58 in. below the average of 15 years.—*Henry Rogers.*



EPSOM, ASHLEY ROAD.—A cold and ungenial spring was followed by an equally cheerless summer, whilst the late autumn and the early winter were marked by heavy R and floods. There was an exceptional period of cloudless weather accompanied by abnormal warmth from 26th to 31st March. The fruit crop was an abundant one, the yield of stone fruit amounting to a glut in the market. Throughout the year TSS were very frequent, although there was no individual storm of marked intensity. During the year there were recorded 74 frosts in the screen and 109 on the grass. The mean temp. of the year was  $49^{\circ}2$ .—*Spencer C. Russell*.

WALLINGTON, COTSWOLD.—R 1·82 in. below, and rain days 21 above, the average of 20 years. The duration of sunshine was 1441·9 hours (Jordan), or 101·9 below the average.—*F. Campbell Bayard*.

### KENT.

TENTERDEN, SUMMERHILL.—Though generally thought to be wet the year was really deficient in R. The summer was cold with much wind. Fruit crops were especially good, and hay and corn good, and hops good also but picked late.—*Mary Wilkin*.

TENTERDEN.—The R was 3 in. below the average of 40 years, the deficiency being mainly in the first three months. April and October were very wet. A cold spell occurred at the end of January, and February was mostly cold. The last fortnight in March averaged 10 hours of sunshine per day, but the nights were cold. Cold, showery weather followed until 10th July when dry weather set in. The finest and warmest weather of the summer occurred between 23rd August and the end of September, although the shade temp. never reached  $80^{\circ}$ . The first three weeks of November were dry, but the last week and the first half of December were wet. The last week of the year was dry and cold, with E. winds. The total duration of sunshine was 1687 hours (Jordan).—*J. Ellis Mace*.

TONBRIDGE, INGLESIDE.—Although popularly called a wet year, the R was well below the average. An absolute drought occurred from the 5th to 25th September, but in October R fell on every day from the 1st to 20th, excepting the 12th.—*Arthur H. Neve*.

HYTHE, HILLHURST FARM.—R 2·33 in. below the average of 23 years.—*G. F. Deedes*.

FOLKESTONE, RADNOR PARK.—R 5·06 in. below the average of 15 years.—*J. W. Stainer*.

CANTERBURY, MEDICAL HALL.—The first three months were very dry and sunny, but the second three months were wet, cold, and very deficient in sunshine. January, March and July had less than half the average R, and September was very dry and sunny. April was very wet, having more than double the usual R, and the sharp frost on 20th did much harm to early vegetation. October was extremely wet. August was about normal for both R and sunshine, but was colder than the average. The whole year had rather less than the average R, and thanks to the abnormal March rather more than the average sunshine.—*A. Lander*.

RECULVER.—In spite of much R in the late autumn the year's total was nearly 3 in. below the average of 20 years. The R suited agricultural work and vegetation until October. The cold and windy weather did not cause so much damage as was feared.—*Allington Collard*.

ST. PETERS.—A cheerless summer and a deficiency of R in the first nine months. An absolute drought with summer weather was experienced from 6th to 20th September. October was abnormally wet, but the ground was so parched that it easily absorbed the excessive R.—*H. C. V. Snowden*.

### SUSSEX.

FUNTINGTON.—A gloomy year and very wet during the last three months. The artesian well never ceased to overflow, and began to rise from its lowest level on 20th November. It usually begins to rise about 1st January.—*J. A. Greenwood*.

HASTINGS, GUESTLING RECTORY.—The first three months were unusually dry, the total R being only 3·13 in., of which 1·51 in. fell in February. The Eastertide was fine, warm and remarkably pleasant, but the nights were cold. The greater part of the summer was ungenial and wet, and the day temp. much below the average, but most of the hay crop was secured without injury. The latter part of August and almost the whole of September were fine and dry. October, however, was very wet, there being only four days without R.—*E. N. Bloomfield*.

STONEHURST, FIVE ASHES.—The first quarter had a deficient R and an excess of sunshine. The two following quarters had a deficiency of sunshine and an excess of rain days, though the actual volume of R was not great. September had about three weeks fine weather, which saved the situation for agriculture.—*Emily Aston*.

CROWBOROUGH, UCKFIELD LODGE.—The R was  $\cdot 69$  in. below the average of 36 years, but the number of rain days exceeded the average. March and September were the best months, and in the former brilliant, warm sunshine was enjoyed on 27 days. There was a rain spell of 37 days from 28th September to 3rd November, and one absolute drought of 15 days from 8th March to 1st April.—*J. J. S. Driberg.*

### HAMPSHIRE.

TOTLAND BAY, ASTON HOUSE.—R  $2\cdot 03$  in. below the average of 21 years, but number of rain days normal.—*John Dover.*

BOURNEMOUTH, KEMPSEY.—The first quarter was very dry, each month recording less than an inch of R. April was wet, but May and June were slightly under the average, the deficiency increasing through July, August and September, so that contrary to the general impression, the summer was dry, as well as cold, and the R for the nine months much below the normal. October was exceptionally wet having  $10\cdot 46$  in. of R, thus making up the previous deficiency, and with the almost normal R of the last two months, the year closed with its average supply.—*E. L. M. Colvile.*

CHRISTCHURCH, WINKTON LODGE.—R slightly above the average. A splendid Easter was experienced at the close of March. The hottest weather occurred in May when the temp. reached  $70^{\circ}$ . The summer was cool, damp and windy, without heavy R but drizzling, with low temp.—*Jane Lassell.*

EMSWORTH, REDLANDS.—R  $\cdot 97$  in. above the average of 24 years. A beautiful Easter was followed by weather of a disagreeable type until the end of August. A splendid September, however, enabled one of the best all round harvests on record to be secured. The first two weeks in December were unusually mild, and apple trees were in bud. Then followed severe cold and the year ended with fog and gloom.—*F. Jacomb-Hood.*

FORDINGBRIDGE, OAKLANDS.—The first three months were exceptionally dry, the R being only  $2\cdot 75$  in. The summer was cold and sunless, with considerable R. September was beautifully warm and bright. October was exceptionally wet, the R being  $9\cdot 12$  in. which has only been twice exceeded in 33 years. November and December were mild until the last week of the year, when bitterly cold E. winds set in. The total R was  $\cdot 35$  in. above the average of 10 years.—*Sydney B. Rake.*

BISHOPS WALTHAM, HILL PLACE.—The wettest April and the driest September in 32 years. The mean temp.,  $48^{\circ}\cdot6$ , was the lowest since 1892.—*W. A. Daubeney*.

STOCKBRIDGE, ASHLEY.—The intermittent stream, the Somborne, which usually flows for several months in the first half of the year, did not start flowing until after the rainy week ending 13th December.—*Legh S. Powell*.

HARTLEY WINTNEY.—For the first three months the weather was abnormally dry and cold, with R below the average, but April was unusually wet: the summer period lacked sunshine greatly. October was very wet, and until the end of the year fog and R prevailed.—*W. G. Machin*.

### BERKSHIRE.

MAIDENHEAD, THE FIRS, CASTLE HILL.—The first three months were fairly dry and cold, but at the end of March the weather became warmer. May had persistent N.E. winds and June was cold, damp and windy, making winter clothing necessary. July and August were damp with cold nights, but September was unusually fine and warm. October was very wet and November was damp and mild, and dahlias were in bloom until 16th when frost cut them off.—*J. W. Duncan*.

### DIVISION III.—SOUTH MIDLAND COUNTIES.

#### MIDDLESEX.

PONDERS END, BYLOCK HALL.—On the whole, the spring was showery and cold, but a delightful spell of warm sunny weather occurred at the end of March. The summer was cloudy and cool with frequent showers, the coolness and lack of sunshine were the more marked after the brilliant summer of 1906. September was very fine, but the autumn was rather wet and exceptionally mild.—*Harold E. Freir*.

#### HERTFORDSHIRE.

WATFORD, WEETWOOD.—The R was nearly 3 inches above the average. The last quarter of the year had from three to four times as much R as the first quarter, the second and third having about an average fall. There was an absolute drought of 18 days from 7th to 24th September.—*J. Hopkinson*.

ST. ALBANS, COUNTY MUSEUM.—A year of average temp. and R, but with an excess of rain days. The winter was mild and dry, the spring cold and wet, the summer cold and dry, and the autumn warm with average R. February was a little colder than January, and September was a little warmer than July.—*J. Hopkinson.*

HAILEYBURY COLLEGE.—The R was well distributed throughout the year. A period of 14 days perfect weather commenced on 20th March, and an absolute drought occurred from 6th to 24th September. It was observed that 60 per cent. of the R fell with the wind blowing from between S.W. and S., and 85 per cent. with the wind from between N.W. and S. On 75 per cent. of the rain days the wind blew from between N.W. and S.—*P. H. Latham.*

### BUCKINGHAMSHIRE.

SLOUGH, UPTON.—Despite the wet autumn the total R was .50 in. below the average.—*R. Bentley.*

HEDSOR.—R 3.53 in. above the average.—Brilliant weather prevailed during the latter part of March and throughout September, but the summer was unseasonable and sunless, with constant, though not heavy, R. Absolute droughts from 11th to 27th January, and from 6th to 24th September; partial drought from 3rd January to 11th February, 40 days, with .28 in. of R.—*Boston.*

WINSLOW.—A wet, cold, ungenial spring followed by an unsettled, cloudy summer, with frequent R. The hay harvest was much impeded and much of the fodder spoiled. September was bright, warm and genial, and the late cereal crops were well secured. The autumn and early winter months were extremely mild and humid, with frequent fogs and occasional heavy R.—*R. A. Easton.*

### OXFORDSHIRE.

ABINGDON, CULHAM VICARAGE.—The first three months were dry, but the summer was wet and sunless except during September. October and December were wet months.—*F. C. Clutterbuck.*

ADDERBURY.—R 3.33 in. above the average of 16 years.—*G. H. Norris.*

ASTROP.—Very wet during and after the hay harvest and, in consequence, the hay was poor, without sap or sustenance. It continued wet for the early grain crops but dilatory farmers came in for dry, warm weather in September, such as had not been enjoyed for many years, and everything was secured in good condition.—*E. Browne.*

**NORTHAMPTONSHIRE.**

WELLINGBOROUGH, CROYLAND ABBEY.—R 1·24 in. above the average of 40 years.—*E. Sharman.*

SCALDWELL.—R 4·38 in. above the average of 16 years. Owing to the wet summer the amount of grass much exceeded the average. The corn harvest was better than expected and a fine September enabled it to be safely secured. The last three months were very wet, resulting in heavy floods.—*R. Soames.*

**BEDFORDSHIRE.**

SANDY, BEESTON GRANGE.—Persistently wet and cold, with S.W. winds. Great absence of sunshine except from 20th March to 3rd April, and from 7th to 24th September.—*M. Bowers.*

**DIVISION IV.—EASTERN COUNTIES.****ESSEX.**

SOUTHEND, BROADWAY.—The first three months were cold, but towards the end of March the weather became much warmer and the temp. reached 61° on 30th and 31st. May, June and July were marked by persistent W. or S.W. winds and low temp. A brilliant period, and one of absolute drought, occurred from 8th to 25th September, in which time the max. temp. of the year, 77°, was recorded. The last three months were mild with the exception of a cold snap at the end.—*Herbert J. G. Ralph.*

UPMINSTER HALL.—The first three months were dry and the last three months were wet. A period of 10 days of fine, warm weather in July enabled a good hay crop to be gathered, but unseasonable weather followed until September when three weeks of glorious harvest weather was experienced. Mild conditions prevailed to the end of the year, and roses and strawberries (green) were gathered on Christmas day.—*G. H. T. Swinton.*

**SUFFOLK.**

IPSWICH, ROOKWOOD, COPDOCK.—The features of the year were the absence of sun and heat, excepting during March and September; the extraordinary number of days on which R fell yet yielding no total excess; the absence of wind, and the mildness of the autumn.—*F. L. Bland.*

HAVERHILL, GREAT THURLOW.—R 2·00 in. above the average of 23 years.—*H. O. Stallard*.

CLARE, HAWKEDON RECTORY.—The year was dull and rainy except for three fine spells. The first, with quite hot sun, was during the latter part of March, the second was in the middle of July and the third in September, with an absolute drought of 18 days.—*B. P. Oakes*.

#### DIVISION V.—SOUTH WESTERN COUNTIES.

##### WILTSHIRE.

MAIDEN BRADLEY.—R 1·88 in. above, and rain days 16 above, the average of 20 years.—*A. W. Hartopp*.

WARMINSTER, RYE HILL.—The first three months were the driest in the record which extends back to 1875. The summer was cool and cloudy, very favourable for livestock but bad for haymaking. September was very fine and a bulky, but late, harvest was secured. The last three months were wet and gloomy, and unfavourable for wheat sowing.—*Stiles E. Jefferys*.

SALISBURY PLAIN, SHREWTON.—The notable features were the dryness and sunshine of the first quarter and of September, and the excessive R during October and from 17th November to 13th December. Small falls were frequent during the summer, but the harvest exceeded expectations.—*F. J. Wardale*.

WOOTTON BASSETT.—R 1·03 in. above, and rain days 8 above, the average of 17 years.—*H. Bevir*.

##### DORSETSHIRE.

UPWEY, PORTLAND WATERWORKS.—The first nine months were very dry, followed by an exceptionally wet autumn. October, with 10·48 in. of R, was the wettest month in the record.—*R. S. Henshaw*.

BEAMINSTER VICARAGE.—R 2·40 in. below the average of 35 years.—*A. A. Leonard*.

##### DEVONSHIRE.

IVYBRIDGE, LANGHAM HILL.—R 13 per cent. above the average of 20 years. The first three months were dry and windy, but the autumn was the wettest since 1891. Sunshine was conspicuous by its absence, the only continuous fine weather being from 10th to 22nd July, from 20th to 31st August, and from 7th to 25th September.—*M. A. Glanville*.

ASHBURTON, DOLBEAR.—The first three months were dry with a good deal of frost. April and May were very wet. Cold and damp conditions prevailed during the next four months, and the last quarter was very wet.—*W. W. Battiscombe.*

TAVISTOCK, STASFORD, WHITCHURCH.—A damp, cloudy, and rather cold year, with about average R. The longest wet periods were 18 days ending 19th August, with 2·75 in., 30 days ending 29th October, with 8·97 in. (the longest since January, 1899), and 23 days ending 23rd December, with 6·39 in. An absolute drought of 18 days ended on 25th September. The max. temp. rose to 70° or above on 14 days only; frost was recorded in the screen on 34 days, and on the grass on 109 days. Mean temp. 48°·3.—*Edwin E. Glyde.*

CHUDLEIGH, IDEFORD.—R 2·69 in. above, and rain days 26 above, the average of 20 years.—*G. J. Ford.*

POLAPIT TAMAR, LAUNCESTON.—R ·82 in. below the average of 37 years, but rain days 23 above the average of 26 years. Rain spells occurred from 5th to 19th March, 8th to 30th October, and from 2nd to 22nd December.—*R. C. Coode.*

ROUSDON [LYME REGIS].—The first three months were remarkably dry, the total R being 3·86 in. below the average. July, August and September were also very dry. An absolute drought occurred from 7th to 26th September. October was the wettest month of the year, and the wettest October recorded here during 25 years. The year was generally regarded as a wet one, but the total R was ·93 in. below the average. The cause of such an impression was that the number of rain days was 19 above the average. May and June were very dull and cool, and even in July there was a marked absence of anything like summer heat. The warmest day was 17th July, when the temp. reached 76°·5.—*C. Grover.*

### CORNWALL.

REDRUTH, TREWIRGIE.—R 1·18 in. below the average of 28 years. Rain spells occurred from 23rd December, 1906, to 10th January, 1907, 19 days, with 3·59 in. of R; from 29th September to 30th October, 32 days with 8·34 in.; and from 30th November to 28th December, 29 days with 5·80 in. An absolute drought occurred from 7th to 24th September.—*Arthur Pearse Jenkin.*

CALLINGTON, MOUNT LODGE.—R slightly below the average, although the number of rain days was considerably in excess of the



normal. On 72 days the R did not exceed .05 in. A rain spell of 35 days occurred from 30th September to 3rd November.—*G. Brown.*

ALTARNON VICARAGE.—January and February were dry, and March was warm, which was of considerable advantage to sowers. April, May and June were wet, but were followed by a fine, warm July, which haymakers appreciated. August was wet, but a dry period followed, and the last quarter was so mild that fruit and flowers were picked at Christmas.—*C. U. Tripp.*

### SOMERSETSHIRE.

NORTH CADBURY RECTORY.—The first quarter was extremely dry, followed by a very wet April. Showery weather succeeded until September, which was fine, and the last quarter was wet and mild. An absolute drought occurred from 7th to 28th September, and a wet spell from 8th to 25th October, 18 days with 3.78 in. of R. R .31 in. below the average of 10 years.—*H. A. Boys.*

WINSFORD VICARAGE.—R 2.43 in. below the average of 17 years.—*W. Dicker.*

EDINGTON.—A remarkable year for its sunless summer and wet autumn. In spite of an unusually dry winter, the R was 6.50 in. above the average, but the number of rain days is more extraordinary; even the very wet season of 1903, with 5 inches more R, had three less rain days. The year gives three distinct "records": (1) the greatest number of rain days in one year; (2) the heaviest R in any consecutive three months; and (3) the greatest number of rain days in any three months. The crops were generally good and well saved, except fruit, which, from want of sufficient heat and sun, had no flavour. The apple crop was a dismal failure.—*A. C. F. Luttrell.*

CRANMORE HALL.—R 3.75 in. above, and rain days 36 above, the average of 25 years.—*A. Moore.*

CHEWTON MENDIP, THE PRIORY.—R 4.32 in. above the average of 20 years.—*Waldegrave.*

EAST HARPTREE, HARPTREE COURT.—R .20 in. above the average of 25 years. Absolute droughts occurred from 19th March to 2nd April, and from 7th to 30th September.—*W. W. Kettlewell.*

WINSCOMBE, THE DOWN.—The summer was wet and cold, with excess of rain days, but deficient R, until 8th September when 23 days absolute drought commenced. The R was much in excess of the average in the last three months.—*J. Grubb.*

## DIVISION VI.—WEST MIDLAND COUNTIES.

## GLOUCESTERSHIRE.

CLIFTON, PEMBROKE ROAD.—R  $\cdot 18$  in. above, and rain days 24 above, the average. September was, with one exception, the driest in 52 years, and December, also with one exception, the wettest. The autumn and early winter were very mild, except for a week's cold, dry weather at the end.—*R. F. Sturge.*

STROUD, STANLEY PARK.—R  $3\cdot48$  in. above the average of 18 years.—*W. J. Paley Marling.*

GLOUCESTER, BELGRAVE ROAD.—R  $3\cdot39$  in. above, and rain days 20 above, the average of 24 years.—*W. Piffe Brown.*

CIRENCESTER, DOLLARWARD HOUSE. — R  $2\cdot73$  in. above the average of 18 years. A backward spring, and a cold, wet, cheerless summer were followed by a grand September which resulted in heavy grain crops. The last three months were extremely wet, and ploughing and sowing were much interfered with.—*Charles P. Hooker.*

## HEREFORDSHIRE.

HEREFORD, ST. MICHAEL'S PRIORY.—The weather of the year can be summed up as cold and wet. The R was rather light but continuous, and the Wye was in flood on one or two occasions during the summer. The October R has not been equalled as far back as 1891, and extensive floods were caused in the Lugwardine and Allensmore districts. The total R was  $2\cdot26$  in., and the number of rain days 46, above the average of 15 years.—*A. F. Barratt.*

## SHROPSHIRE.

CRAVEN ARMS, STOKESAY VICARAGE.—There was an absence of severe frost and heavy falls of S in winter, but a keen frost after R at the end of April did much damage to vegetation. There were two periods of absolute drought, one beginning on 27th March lasting fifteen days, and another on 25th August lasting till 12th September. During the spring and summer months there was just sufficient R to keep the soil moist enough for crops, but not enough to reach the springs. It was a good year for agriculture. Mid-summer passed without heat, this was reserved for the latter end of August and the beginning of September which was rather trying to sportsmen.—*W. M. D. La Touche*

**WORCESTERSHIRE.**

WORCESTER, BOUGHTON PARK.—The R was considerably above the average, although January and February were dry and September abnormally so with an absolute drought from 8th to 30th. The only real summer weather occurred at the end of March and during September. October and December were exceptionally wet.—*Amy A. Isaac.*

**WARWICKSHIRE.**

ALCESTER, RAGLEY HALL.—R 3·70 in. above the average of 20 years.—*Hertford.*

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

BLABY.—The weather was mild and fine to 22nd January, and then very cold to 8th February. Remarkably fine and warm weather set in for a fortnight on 21st March. The summer was miserably cold, dull and rather wet, but September was fine and dry from 8th. The last three months were mild and wet, with frequent floods.—*G. F. Shoults.*

BELVOIR CASTLE.—R ·36 in. above the average. Mean temp. 47°·1, or 1°·0 below the average. Duration of sunshine 1515·2 hours, or 3·3 hours below the average; 54 sunless days.—*W. H. Divers.*

**LINCOLNSHIRE.**

BOSTON.—R ·61 in. below the average of 82 years.—*W. H. Wheeler.*

HORNCASTLE, REVESBY.—The cold weather and R of May and June made 1907 the best year for water supply since 1892. Storage was not drawn upon until the middle of July, and the stream yielded a full supply again in the first week of October. The harvest was a month late, and early crops were depreciated by the R in August, but September was a good harvest month.—*J. Shaw.*

LOUTH, WESTGATE.—R 3·17 in. below the average of 35 years, and number of rain days 21 above the average of 20 years.—*F. Fawcett.*

**NOTTINGHAMSHIRE.**

PLUMTREE, NORMANTON-ON-THE-WOLDS.—R 1·57 in., and rain days 28, above the average of 17 years.—*T. A. Hill.*

WORKSOP, HODSOCK PRIORY.—The year was marked by a very dull summer, with little warm weather, a good many showers, but no excess in the total R. The first quarter was very bright, with an exceptionally fine spell at the end of March. A remarkably dry September was followed by a large excess of R in October. Hay, corn and root crops were all bulky, but were very late. Fruit crops were fair.—*H. Mellish.*

### DERBYSHIRE.

HAZELWOOD, CHEVIN.—R 3·69 in. above the average of 22 years.—*John G. N. Alleyne.*

WIRKSWORTH, BRIDGE HOUSE.—The summer months, May to August, were excessively wet, and the temp. only reached 70° on 9 days as against 50 days in 1906.—*Thomas Gibbs.*

BUXTON, DEVONSHIRE HOSPITAL.—The principal feature of the year was the remarkable way in which the dry and wet months were grouped together. The first two months both had falls below the average, the next five all above, and the last five all below. Thus, the winter months all had a small R, whilst the greater part of the summer was very wet. The total fall was 4·01 in. below the average. June was the wettest month, with 8·10 in., and was the wettest June since 1882. The driest month was September, with ·91 in. The popular idea is that 1907 was wet, but comparison with the average shows that it was not.—*F. T. Kielsen.*

## DIVISION VIII.—NORTH WESTERN COUNTIES.

### CESHIRE.

CHESTER, CHRISTLETON HALL.—R ·07 in. below, but number of rain days 25 above the average of 20 years. The winter was cold and stormy, but fine, bright and warm weather was experienced in the latter part of March. The spring and summer were cold and showery, but September was dry and very fine. The later autumn was showery but mild.—*John Weaver.*

MACCLESFIELD, THE PARK.—R 1·50 in. below the average of 55 years.—*John Dale.*

### LANCASHIRE.

BLUNDELLSANDS, PARK CORNER.—R 1·73 in. below the average of 31 years.—*T. Mellard Reade.*

SOUTHPORT, HESKETH PARK.—R  $\cdot 27$  in. below the average of 35 years.—*J. Baxendell*.

ARKHOLME, STORRS HALL.—R  $4\cdot 75$  in. above the average. Owing to the heavy R of June, July and August, flowers and vegetation made no progress until September, which was fine and greatly assisted growth.—*F. F. Pearson*.

CARTMEL, CARKE.—R  $9\cdot 24$  in., and number of rain days 21, above the average of 29 years.—*W. R. Nash*.

BROUGHTON-IN-FURNESS.—R 14 per cent., and rain days 3 per cent., above the average. January, February, April and September were below the average; but the other months were in excess, and the general impression was that it was a wet year.—*C. P. Chambers*.

#### DIVISION IX.—YORKSHIRE.

##### WEST RIDING.

DONCASTER, WADWORTH HALL.—R  $3\cdot 44$  in. above the average of 18 years.—*J. C. Ross*.

LANGSETT MOOR, UPPER MIDHOPE.—The first three months were dry, but the following three were very wet, June being the wettest and coldest for at least 24 years. September was remarkably dry, but the last three months were wet. The fall in October,  $7\cdot 73$  in., was only twice exceeded in 13 years. The total R for the year was  $5\cdot 08$  in. above the average of 12 years.—*Josiah Grayson*.

WATH-UPON-DEARNE, CHAPEL STREET.—Dull, cool summer, but R and sunshine about the average. Absolute drought from 5th to 21st September. Mean temp.  $46^{\circ}\cdot 0$ . Duration of sunshine, 1398 hours.—*F. J. Burman*.

STAINBOROUGH, WENTWORTH CASTLE.—R  $2\cdot 56$  in. below the average of 31 years.—*W. Fisher*.

MELTHAM, HAREWOOD LODGE.—The R was 2 per cent., and the number of rain days 11 per cent., above the average. The weather of the second quarter was very unpleasant, culminating in the worst June on record. The summer was dry and cold, and the temp. only reached  $70^{\circ}$  on 11 days.—*Charles Lewis Brook*.

WAKEFIELD, WALTON HALL.—The general impression was that the year was a wet one, yet the R was  $1\cdot 73$  in. below the average of 32 years.—*E. Simpson*.

HUDDERSFIELD, CEMETERY.—The character of the year as a wet one rests more upon the frequency than the quantity of fall. The

year opened with mild conditions until the last week of January, when the bar. reached the highest point for 25 years, with, on 24th, the lowest mean temp. for 12 years. After an exceptionally fine Easter, there was a remarkable run of rainy and gloomy days lasting till July. August showed some improvement, but September was the most pleasant month. The last three months were wet.—*J. Firth.*

WAKEFIELD, STANLEY GRANGE.—The R was 1·30 in. below the average of 19 years, but the number of rain days was the greatest since the record commenced in 1889. Duration of sunshine 1191·4 hours.—*H. Stanley Haworth.*

HALIFAX, HALL INGS, SOUTH OWRAM.—A gloomy sunless year, but the R was 4·72 in. below the average of 17 years.—*G. E. Aspinall.*

#### EAST RIDING.

THIXENDALE.—The spring was cold and the summer was dull, with a great absence of sunshine. Some splendid weather was experienced in September, but the late harvest was long protracted, and loss was sustained by the setting in of wet weather in October. It was a deficient fruit year, and the potato crop was an indifferent one.—*W. H. Fox.*

#### NORTH RIDING.

MALTON.—The main growing months were cold and dull, which postponed the corn ripening and made the harvest late. A dry September enabled the harvest to be secured in good condition in the lowlands, but considerable local damage was caused on the hills, and there was no chance of securing dry corn after the end of September.—*M. B. Slater.*

LEYBURN, BOLTON HALL.—R ·79 in. above the average of 31 years. The year was popularly supposed to have been a wet one, owing to the absence of sunshine and drying wind, which caused persistent dampness and cold, and prolonged the hay and corn harvests.—*F. Scrivener.*

INGLEBY MANOR.—R nearly 5·00 in. below the average of 20 years, but number of rain days about the average. Temp. below the average, and the summer was dull and damp, except during the latter part of September.—*De L'Isle.*

## DIVISION X.—NORTHERN COUNTIES.

## DURHAM.

SUNDERLAND, WEST HENDON HOUSE.—The R was 2·42 in. below the arithmetical and 2·08 in. below the geometrical mean for the 46 years, 1860-1905. May was the wettest month with 4·12 in. January and September were the driest months with ·34 and ·37 in. respectively. March was also a dry month, the fall being only ·96 in. On no occasion in the year did the fall for 24 hours reach 1 inch, the nearest approach being ·98 in. on May 31st. S fell on 20 days in the year; the greatest depth being 5 inches on January 1st. There was an excess of N.W. winds during the year, and there were decided deficiencies of N.E. and S.E. winds. The N. and N.E. winds were the wettest in proportion to the time they blew, and the W., as usual, the driest; but the proportional R with each wind, with the exception of the S. and S.W., was below the average. September was a particularly fine month, but foggy, which unfortunately prevented a little of the corn in the district from being got in seasonably. There were two absolute droughts; from 5th to 20th January and from 20th March to 2nd April.—*T. W. Backhouse.*

## NORTHUMBERLAND.

NEWCASTLE, TOWN MOOR.—R ·50 in. below, and number of rain days 29 above, the average of 40 years.—*Andrew Wright.*

## CUMBERLAND.

MILLOM, LEYFIELD.—R 7·74 in. above, and number of rain days 10 above, the average of 17 years.—*Cedric Vaughan.*

SEASCALE, WHINTHWAITE.—R 7·52 in. above the average of 18 years.—*Robert Hellon.*

BRAMPTON, DENTON HOUSE.—R ·70 in. below, and number of rain days 4 below, the average of 21 years.—*B. Gardhouse.*

PENTON, WARWICKSLAND SCHOOL.—Remarkable for the absence of sunshine and the persistent R which was disastrous to agriculture. The turnip crop was practically unsown, R not allowing the land to be prepared, and hay was not got in in good condition.—*W. Roden.*

## DIVISION XI.—WALES AND THE ISLANDS.

## GLAMORGANSHIRE.

COWBRIDGE, FONMON CASTLE.—R 1·95 in. below the average of 23 years, but number of rain days much in excess.—*O. H. Jones.*

NEATH, FAIRY LAND.—The spring was dry and cold, but followed by a cold, wet summer and a mild, wet autumn. With the exception of a fortnight in July and three weeks in September, there was practically no summer weather.—*E. Ll. Green.*

YSTALYFERA, WERN SCHOOL.—The first four months were fairly dry, but June and July were so wet, cold and generally ungenial that fruit and vegetation suffered considerably. September was the only good month.—*J. Williams.*

### CARMARTHENSHIRE.

CARMARTHEN, THE FRIARY.—Unusually dry with very little fine weather except for about 9 days in July and the last three weeks in September. Barley crops were sown late in consequence of dry weather preventing the tilling of the land, and those crops left out after the end of September were ruined by the subsequent R of October and November.—*L. M. Bowen-Jones.*

LLANWRDA, DOLAUCOTHY.—The year, notwithstanding its abnormal R, was until the last month a prosperous one for farmers. The steady R of December, however, following a wet October and latter part of November had a bad effect upon the sheep, many of them being lost in the lowlands.—*J. Hills-Johnes.*

### PEMBROKESHIRE.

HAVERFORDWEST, HIGH STREET.—The year was remarkable for its coldness. The temp. was low during the spring and summer months, except during July and September. October, November and December were unusually mild and damp, and there was hardly any frost. The warmest days were 18th and 20th July when temp. reached 80°·2. October was the wettest month and September the driest. Crops of all kinds were very late and considerably damaged by wet. Total duration of sunshine 1586·6 hours.—*E. Picton Phillips.*

ST. DAVIDS.—March was favourable for preparing the land, and great progress was made in sowing during the latter part of April. June was wet and haymaking was retarded. Corn and green crops were abundant, but owing to the wind and R the former was much tangled, and difficulty was experienced in cutting. October being wet, the corn remained a long time in the fields and was much damaged.—*D. P. Williams.*



**BRECON.**

CRICKHOWELL, GWERNVALE.—An unusually dry spring was followed by a wet, cold summer. A very dry September was succeeded by an equally wet October. A poor fruit year, and many farmers lost their hay, but the dry September saved the harvest.—*E. Pirie Gordon.*

**ISLE OF MAN.**

DOUGLAS, WOODVILLE.—The three winter months were mild with but little R, and singularly beautiful weather at the end of March. April was cold and stormy throughout. May was even worse, and June, with excessive R, worst of all. No relief came until 14th July, when the weather was very fine with high temp. to 23rd. August was as bad as, or worse than, June—and these months were the coldest on record. September, after 7th, was exceedingly fine and dry. October had a record R, and a fair November was succeeded by renewed torrential R and storms—with very cold, unusually strong E. gales from 23rd—causing dislocation of the cross-channel mail service ; then the year's evil reputation was maintained to its close.—*Herbert Story.*

**GUERNSEY.**

ST. MARTINS, LES BLANCHES.—All through the year there was a deficiency in the accumulated R, which, curiously enough, was most pronounced at the end of September, and least so at the end of October. The closeness to each other of the maximum and minimum of deficit is accounted for by the excessive downpour of the latter month. Absolute drought lasted from September 6th to 25th.—*B. T. Rowsell.*

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

WHITHORN, CUTROACH.—The wettest year for at least 14 years. Although the total R was ten inches more than in 1906, the number of rain days was less than in that year.—*J. G. Martin.*

**KIRKCUDBRIGHT.**

AUCHENCAIRN, TORR HOUSE.—R 12·06 in. above the average of 36 years.—*W. Ovens.*

**DUMFRIES.**

DUMFRIES, IVY BANK.—R 6·00 in. above the average of 21 years.—*W. Andson.*

**ROXBURGH.**

HAWICK, BRANXHOLME.—The distinguishing features of the year's weather were the absence of sunshine and the excessive number of rain days. The cornfields were not cleared until the beginning of December.—*John G. Winning.*

MELROSE, DISTRICT ASYLUM.—R 4·09 in., and number of rain days 8, above the average of 25 years.—*A. C. Pattman.*

**DIVISION XIV.—SOUTH WESTERN COUNTIES.****LANARK.**

HAMILTON, LAIGHSTONE HALL.—The most memorable thing about the year was the untimeliness of the R. The holiday months, June and August, had only 4 days each without R, and the harvest month of October had only 8 fine days. Fortunately the weather was good in the hay season, but no such disastrous harvest has occurred for a generation.—*T. M. B. Paterson.*

**AYR.**

BARRHILL, DOCHROYLE.—R 5·44 in. below the average of 31 years.—*John Scott.*

DALRY, BLAIR.—Cold, wet and sunless, except from 14th to 23rd July, when the weather was very warm, and from 12th to the end of September, when it was quiet and windless. The winter was mild and free from S and storm.—*W. Mair.*

**DIVISION XV.—WEST MIDLAND COUNTIES.****STIRLING.**

FALKIRK, INGLEWOOD, LAURIESTON.—R 7·00 in. above the average. The year will be remembered on account of the very late and disastrous harvest, consequent on the rainy and sunless summer.—*W. Ballantine.*

FALKIRK, WESTBANK.—R 2·94 in. above the average of 15 years.—*A. Nimmo.*

STIRLING, POLMAISE GARDENS.—The chief features of the year were the cold and wet conditions which prevailed in May, June and August. September, though dry, was very sunless, and much of

the harvest crop was ruined by the continuous R of October.—*W. W. Ritchie.*

BUCHLYVIE, THE MANSE.—R 6·51 in., and number of rain days 33, above the average of 18 years. The harvest was late, and was so hindered by the wet October that it was not all gathered in until 22nd November.—*John A. Macdonald.*

MULL, KINLOCHSPELVIE.—The most remarkable features of the year were the fall of R on every day in June, and the exceptional fall of 15·51 in. during August.—*R. McMorran.*

#### DIVISION XVI.—EAST MIDLAND COUNTIES.

##### FIFE.

COLINSBURGH MANSE.—W. winds were most prevalent, blowing on 109 days, but they only brought R on 37 days, whereas the wind blew from S.W. on 94 days, of which 65 were rain days.—*Robert Dick.*

KILMANY, MOUNTQUHANIE HOUSE.—The early months were cold, bleak, dull and misty. May and June were cold and wet, July was rather warmer but with heavy showers. August was wet and sunless. The weather improved in September, but the last three months were wet, sunless and very cold.—*David Dinwoodie.*

##### PERTH.

BRIDGE OF EARN, BALLENDRICK.—The salient features of 1907 were the absence of sunshine in summer and the heavy R in October, resulting in the ruin of the corn crops.—*R. Richardson.*

LOCHEARNHEAD, ARDVORLICH.—May and June—usually the driest and warmest months—were abnormally wet, and disastrous to the grouse in the district. The young grouse were either drowned or killed by cold.—*J. Stewart.*

COUPAR ANGUS.—R 3·69 in. above the average. The only redeeming feature was a good September, and it is many years since so much of the harvesting had to be done in November and even December.—*John Robertson.*

#### DIVISION XVII.—NORTH EASTERN COUNTIES.

##### ABERDEEN.

ABERDEEN, DUTHIE PARK.—The most dull and ungenial season on record. The only fine period was for three weeks in September, and the bulk of the harvesting had to be done in November.—*P. Harper.*

**NAIRN.**

CAWDOR CASTLE.—From a horticultural and agricultural point of view the year was the worst in living memory. There was no spring weather and the only fine days in summer occurred at the end of September. Great lack of sunshine.—*Cawdor*.

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

ARISAIG HOUSE.—R 5·04 in. below, and number of rain days 8 above, the average of 23 years.—*W. Grant*.

LOCH NESS, DRUMNADROCHIT.—R 4·01 in. below, and number of rain days 4 above, the average of 21 years. The feeling that 1907 was an excessively wet year has arisen from the fact that in the months of May to August 13·39 in. of R fell on 85 days, against the average for these months of 9·89 in. on 72 days.—*Angus Grant*.

**SUTHERLAND.**

DUNROBIN CASTLE.—The spring was late and the only warm summer weather occurred from 14th to 26th July. September was a good month, and the crops were got in in good order. Generally good weather was experienced in the last three months.—*D. Melville*.

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

MALLOW, SUMMER HILL.—The spring was remarkable for the prolonged drought, the first three months' R amounting to only 4·25 in. The total R was 2·13 in. below the average.—*J. F. Williamson*.

MITCHELSTOWN CASTLE.—The first quarter was unusually dry and mild, but the rest of the year was cold and ungenial, with much R. A short spell of warm, dry weather occurred in July, and September was mostly fine.—*W. D. Webber*.

**WATERFORD.**

WATERFORD, BROOK LODGE.—R 1·16 in. below, and number of rain days 29 above, the average.—*C. P. Bolton*.

**TIPPERARY.**

NENAGH, CASTLE LOUGH.—R 16.4 in. below, but number of rain days 12 above, the average of 30 years.—*S. G. J. Parker-Hutchinson.*

NENAGH, HIGHLANDS.—Light R and generally mild in the early months, but cold, harsh winds and showers of sleet and R in March and early April, which checked vegetation. The summer was sunless but September was fine, and October was persistently wet. A quantity of corn was not secured until the middle of November, and some was out at the end of the year.—*John Mounsey.*

**CLARE.**

BROADFORD, HURDLESTOWN.—R 4.21 in., and number of rain days 17, above the average of 22 years.—*W. A. Bentley.*

**DIVISION XXI.—LEINSTER.****WEXFORD.**

ENNISCORTHY, MONART RECTORY.—The drought of January to March was succeeded by excessive R from April to June. The last quarter was also very wet and disastrous for agriculture.—*W. F. A. Ellison.*

**DUBLIN.**

KILLINEY, CLONEEVIN.—R 1.81 in. below, and number of rain days 18 above, the average of 22 years.—*R. O'B. Furlong.*

RATHMINES, LEINSTER ROAD.—The worst year since the record commenced, and the least amount of sunshine within living memory. The summer lasted one week, from 14th to 21st July. Spring, autumn and winter, *as seasons*, were practically non-existent. The one fine month was September, but even in that month a thick, hazy and oppressive atmosphere prevailed. From 1st October to 27th December the streets in Dublin were never dry for 24 hours at a stretch.—*E. H. Cannon.*

**DIVISION XXIII.—ULSTER.****MONAGHAN.**

MONAGHAN, ROWANTREE HOUSE.—March was a bad spring month, June was a bad summer month, and October was a bad harvest month. The middle of July was very warm, and September

was the best month of the year. The temp. of the summer was much below the average, and sunshine was conspicuous by its absence.—*J. C. Hall.*

### ANTRIM.

BELFAST, QUEEN'S COLLEGE.—R 4·36 in. above the average of 41 years.—*George Robinson.*

BELFAST, SPRINGFIELD.—January and February were fine, but March was wet. April was fine, but May and June were rather rainy. July was bright and summerlike as was also a good part of August and September. October was wet and the most severe month of the year. November was seasonable, and December was damp, with S at the end.—*Thomas G. Firth.*

### DONEGAL.

FANAD, TAMNEY RECTORY.—The year's weather was extraordinarily unseasonable, with a great deal of R. There were no less than 7 rain spells, the longest being from 17th June to 7th July, 21 days, with 2·45 in. of R, and from 1st to 20th October, 20 days, with 2·71 in.—*A. C. Digby French.*

## HEAVY RAINS IN SHORT PERIODS.

WE are still dissatisfied with this section, which circumstances render it difficult to approach from a scientific standpoint. The great importance of a knowledge of the heaviest possible downpours of rain and the interest naturally attaching to extreme phenomena of all kinds, render it highly desirable that the matter should receive more attention, and be subjected to more critical study, yet year after year very little information comes to hand which can be turned to good account. It is true that some observers take great pains to measure and put on record all noteworthy instances of heavy falls, and a few owners of trustworthy self-registering rain gauges systematically analyse the curves and make extracts of those calling for attention; the results of their efforts are set out in the following list, but the great probability of many local downpours not being caught by one of these renders the list incomplete.

The rarity of notable heavy rainfalls during 1907 which is at once apparent on glancing at the section on heavy rains on rainfall days, is probably the reason that the number considered remarkable enough to be quoted in the list this year is as small as 47, or little more than half the average during the last 13 years. The number of falls of less than two hours' duration is also much less than usual, and the heavy rains were, on the whole, less intense.

### *Entries of less than Two Hours' Duration.*

	No. of Entries.		Average Rate per hour.
Average, 1892—1906	.....	57	..... 1·84 in.
1907	.....	32	..... 1·72 „
Difference.....	.....	—25	..... —·12 „

Of the entries marked with a **x** to call special attention to them, all save one are due to the curiously local rain “splashes” which were a feature of the thunderstorms of July 21st and 22nd. Indeed more than half of the entries occurred on one of these days. A special article in the first part of this volume deals in some detail with the storms of this period. The fall of 2·49 in. in 1 hour 10 minutes at Bath stands out as the heaviest, and it is necessary to go back as far as July, 1903, to find any instance of rainfall at the rate of over 2·00 in. per hour sustained for so long a time. At other stations in Bath, 2·90 in. and 2·69 in. were measured in 3 hours, and 2·92 in. in the same time at Cothill near Abingdon. On the same day 1·61 in. fell in 30 minutes at Rochford near Tenbury,

and 1·14 in. in 20 minutes at Edenderry, King's County. The only other instance of any note occurred on June 1st at Oxford, when 1·10 in. was registered in 20 minutes.

*Heavy Rains in Short Periods in 1907.*

Date.	Div.	Station.	Amount.	Duration.	Rate per hour.
			in.	hr. min.	in.
Dec. 8 ...	II.	Epsom, Ashley Road.....	·16	... 3	3·20
July 30 ...	„	Ashford, Willesborough Rect.	·25	... 5	3·00
May 8 ...	IX.	Thixendale .....	·11	... 5	1·32
July 30 ...	II.	Ashford, Willesborough Rect.	·38	... 13	1·75
„ „ ...	„	Betchworth, The Holmes .....	·72	... 15	2·88
„ „ ...	VII.	Nottingham, Waterlow Promenade	·58	... 15	2·32
June 6 ...	I.	Hampstead, Akenside Road...	·30	... 15	1·20
July 21 ...	XXI.	Edenderry .....	1·14	... 20	3·42 x
June 1 ...	III.	Oxford, Banbury Road .....	1·10	... 20	3·30 x
Oct. 14 ...	„	Wimpole Hall .....	·82	... 20	2·46
June 1 ...	II.	Epsom, Ashley Road .....	·80	... 20	2·40
„ 10 ...	XXI.	Glen-na-Smoel, Water Works	·53	... 20	1·59
Aug. 10 ...	II.	Abinger Hall .....	·50	... 20?	1·50?
July 21 ...	VI.	Tenbury, Rochford.....	1·61	... 30	3·22 x
June 9 ...	II.	Tonbridge, Ingleside .....	·75	... 35	1·29
May 24 ...	VII.	Gainsborough, Morton .....	·75	... 40	1·13
July 22 ...	VI.	Stonehouse, Wycliffe College..	1·50	... 45	2·00
„ „ ...	XI.	Llangammarch Wells .....	1·10	... 45	1·47
Sept. 26 ...	V.	Redruth, Trewirgie .....	1·00?	... 45	1·33?
July 21 ...	VIII.	Hampson-in-Ellel .....	1·50	1 0	1·50
„ 22 ...	III.	Abingdon, Culham College ...	1·32	1 0?	1·32?
„ 21 ...	VI.	Bromyard, Buckenhill .....	1·10	1 0	1·10
June 1 ...	II.	Sevenoaks, Seal .....	1·03	1 0	1·03
July 22 ...	VI.	Stroud, Upfield .....	1·00	1 0	1·00
„ 21 ...	V.	Bath, Somerset Place.....	2·49	1 10	2·13 x
June 29 ...	VIII.	Liverpool, Huyton Vicarage...	·90	1 15	·72
July 21 ...	XXIII.	Londonderry, Dunruadh .....	1·98	1 30	1·32
„ 22 ...	V.	Quantockshead, St. Audries...	1·54	1 30?	1·03?
Aug. 15 ...	XII.	Hawick, Branxholme.....	1·17	1 30	·78
July 22 ...	VI.	Stroud, Upfield .....	1·16	1 30	·77
„ 10 ...	IV.	Colchester, Lexden .....	1·30	1 35	·82
June 9 ...	X.	Kirkby Lonsdale, Casterton...	1·14	1 55	·59
July 22 ...	VI.	Norbury .....	1·65	2 0	·83
„ „ ...	III.	Abingdon, Culham Vicarage...	1·42	2 0?	·71?
„ „ ...	„	Finchley, Victoria Park .....	2·18	2 15	·97
„ „ ...	VI.	Stroud, Upfield .....	2·16	2 30	·86
„ 21 ...	XI.	Llangammarch Wells.....	1·75	2 40	·66
„ 22 ...	III.	Cothill .....	2·92	3 0	·97 x
„ 21 ...	V.	Bath, Combe Park .....	2·90	3 0	·97 x
„ „ ...	„	Bath, Henrietta Park.....	2·69	3 0	·90
„ 22 ...	II.	Abingdon, Park Road.....	1·86	3 0	·62
„ 21 ...	V.	Pewsey, Wilcot Vicarage .....	1·72	3 0	·57
„ 22 ...	III.	Mill Hill, The Hollies .....	2·15	3 30	·61
„ „ ...	„	Muswell Hill, Colney Hatch Lane	1·95	3 40	·53
„ 21 ...	V.	Market Lavington.....	2·55	3 45	·68
„ 22 ...	III.	Witney .....	1·93	4 0	·48
June 1 ...	II.	Lambourn, Clarionville.....	1·50	4 0	·38



HEAVY FALLS ON RAINFALL DAYS IN 1907.

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FOR 1907 the number of daily records of rainfall sufficiently trustworthy to be utilized for the study of the wettest days amounted to 3465, just 100 more than for 1906, and 763 more than for 1900. The mass of data is very large, its quality is very good ; but we have still to regret that it is far from being representative of the whole country. England and Wales with 49 per cent. of the area of the British Isles yield 84 per cent. of the daily records of rainfall. Scotland with 24 per cent. of the area yields 10 per cent. of the daily records, and Ireland with 27 per cent. of the area yields only 6 per cent. of the daily records. It is true that the sparse populations of Scotland and Ireland make any approach to a uniform distribution of rain gauges impossible ; but at the same time we think that both these countries could do better, and that they would do better if the interest in the subject were as general as it happens to be in England. We mention this fact because we have been charged, with some bitterness, with devoting too much space to the rainfall of England to the neglect of the west and north, and it is necessary to assure some of our readers from time to time that we are really doing our best with the observations they send us, and that the more interest in the subject they can arouse amongst their countrymen the more fully can the conditions of their country be set forth. Though we call attention this year to the relatively small number of daily records in Scotland and Ireland, we do so, not because they are worse this year than before, but because, in Scotland at least, there is a marked improvement, and a reminder of the room for progress may afford a stimulus towards regaining the lost pre-eminence of the sixties.

The maximum fall for any day in the year has been extracted from each record, and, as usual, the initial **M** is used to express the rainfall on that day. While all the **M** are taken out, only the most interesting of them are recorded ; those selected include all which exceed 2·50 in., a fall which is a serious matter everywhere, and also all those which exceed 7·5 per cent. of the whole rainfall of the year at the station in question, which takes account of falls, less than 2·50 in., that are of great importance in places of low rainfall. Occasionally an **M** is

quoted which cannot be utilized for comparison ; this is usually the result of the observer reading his rain gauge at some hour other than 9 a.m., and so taking account of a different period of 24 hours. As heavy falls are often of great intensity and short duration, an hour's difference in the period considered may easily transfer the **M** from one day to another or annul it by dividing the amount into two relatively insignificant parts. In 1907 the number of **M** of sufficient magnitude to require special notice was unusually small, and there were fewer occasions than usual for which it was possible to construct maps of wide-spread falls. The Chronicle records all remarkable instances.

### Part I.—Chronicle.

#### January 1st.

About 25 stations, mainly in the west and north, celebrated New Year's Day by recording their **M** ; but only one is large enough to quote, and that is so large compared with the falls recorded at neighbouring stations (Llyn Llydaw Copper Mine, 2·36 in.) that we feel some hesitation in accepting it, although we see no reason for rejecting it considering the nature of the country. (See August 7th.)

XI. Snowdon (Llyn Llydaw Intake)..... 5·96 in. or 3·9 per cent.

#### February 16th.

**M** were recorded at about 20 stations, chiefly in the north of England and the south of Scotland ; the only remarkable falls occurring in the Lake District, where heavy falls are to be expected at this time of year.

VIII.	Skelwith Fold [Ambleside] .....	2·95 in. or	3·4 per cent.
X.	Ambleside (Skelwith Bridge) .....	4·09 „	4·1 „
„	Elterwater Hall .....	3·40 „	3·6 „
„	Loughrigg (Silverthwaite) .....	2·83 „	3·3 „
„	Dungeon Ghyll .....	3·75 „	3·5 „
„	Grasmere (High Close) .....	2·55 „	2·9 „

#### March 16th.

More than 50 stations in the Lake District, the south-west of Scotland, and particularly in the north of Ireland, recorded their **M** during a heavy gale ; but the amounts were only remarkable in the Lake District, where they were very similar to those noted on the same day of the previous month.

VIII.	Duddon Valley (Seathwaite Vicarage).	2·50 in. or	3·0 per cent.
X.	Borrowdale (Seathwaite) .....	4·25 „	3·3 „
„	„ (Grange) .....	3·46 „	4·2 „
„	Grasmere (High Close) .....	2·55 „	2·9 „
„	„ (The Wray).....	3·04 „	3·3 „

**April 12th.**

M occurred at about 25 stations in the west of England and in Wales, the six cases quoted might be reduced to three, for the four Ebbw Vale gauges are close together.

XI.	Grwyne Fawr (Ffwydd Fwthog) .....	2·77 in. or	6·1 per cent.
„	Ebbw Vale Water Works .....	2·70 „	4·2 „
„	„ (Carno, S.) .....	2·70 „	4·6 „
„	„ ( „ E.) .....	2·80 „	4·7 „
„	„ ( „ W.) .....	2·72 „	4·1 „
„	Hay (Gwernyfed Park) .....	2·53 „	7·1 „

**May 13th.**

About 160 stations, chiefly in the Midlands, recorded their M in a series of thunderstorms which yielded the falls quoted below.

III.	Bedford (The Park).....	1·86 in. or	8·5 per cent.
VI.	Leamington (Radford House) ...	2·11 „	7·5 „
„	„ (Binswood Avenue) .....	2·16 „	8·0 „
„	„ (Cublington) .....	2·35 „	8·9 „
„	Kenilworth (The Spring) .....	2·38 „	8·4 „
„	Coventry (Holyhead Road) .....	2·37 „	8·3 „
„	„ (Kingswood) .....	2·37 „	8·1 „

**May 30th.**

In the Lake District and the south-west of Scotland about 30 stations recorded their M, and at Broughton-in-Furness the fall in the 24 hours was greater than on any other day in 15 years.

VIII.	Broughton-in-Furness.....	2·81 in. or	4·4 per cent.
„	Coniston (Water Park) .....	2·60 „	3·6 „

**July 10th.**

The first of the heavy thunderstorm rains, but not a remarkable one, as out of about 40 stations, chiefly in East Anglia, where the M was recorded, only two require notice, and these only on account of their percentages.

IV.	Colchester (Hill House, Lexden).....	1·70 in. or	7·9 per cent.
„	Lawford (Dale Hall) .....	1·86 „	8·2 „

**July 21st.**

[For Map, see Part I.]

A remarkable series of thunderstorms brought the M to about 100 stations, mainly in the west of England. As similar weather conditions prevailed on the following day in the same districts, it may not have been possible to detect all cases of rainfall being entered to the wrong day by careless observers. The storms of the two days are discussed with maps in Part I. It is sufficient here

to quote the area affected by the heaviest rain as deduced from measurements on the map :—

	Area, sq. miles.	General Rainfall, inches.	Volume of Rain, sq. miles x inches.
Over 3 inches.....	4	3·05	12
2—3     ,,     .....	206	2·20	453
1—2     ,,     .....	4826	1·30	6274
Total over 1 inch ...	5036		6739

From this the general rainfall on the area with more than an inch appears as 1·34 in.

V.	Market Lavington .....	2·55 in. or	8·7 per cent.
,,	Bath (Henrietta Park) .....	2·69     ,,	8·3     ,,
,,	,, (Kingswood School) .....	2·76     ,,	8·0     ,,
,,	,, (Hampstead, Combe Park) .....	2·90     ,,	8·8     ,,
,,	,, (Somerset Place).....	3·27     ,,	9·0     ,,
VI.	Gloucester (Wotton Asylum) .....	2·82     ,,	9·8     ,,
,,	,, (Maise more Lock) .....	2·65     ,,	9·3     ,,
,,	Pencombe Rectory .....	2·57     ,,	7·5     ,,
VIII.	Runcorn (Weston Point) .....	2·30     ,,	7·6     ,,
,,	Preston (Corporation Offices) .....	2·57     ,,	6·2     ,,

### July 22nd.

[For Map, see Part I.]

The thunderstorms on this date were even more remarkable than on the previous day, but the whole of the circumstances are dealt with so fully in Part I. that only the bare summary is required here. As on the previous day **M** were recorded at about 100 stations, but these were scattered along a diagonal belt from the middle of Ireland to Essex, and at some points the rain and hail must, from the effects they produced, have far exceeded the amounts which were recorded at stations where observations happened to be made. The area on which the rainfall exceeded 1 inch was as follows :—

	Area, sq. miles.	General Rainfall, inches.	Volume of Rain, sq. miles x inches.
Over 3 inches.....	14	3·20	45
2—3     ,,     .....	181	2·37	429
1—2     ,,     .....	1805	1·29	2328
Total over 1 inch ...	2000		2802

From this we find that the general rainfall of the area with more than an inch of rain was 1·40 in.

II.	Abingdon (Union) .....	2·25 in. or	8·4 per cent.
III.	Hornsey (High Street) .....	2·35     ,,	8·9     ,,
,,	Muswell Hill (Grand Avenue) .....	2·17     ,,	8·0     ,,
,,	,,     ,, (Colney Hatch Lane) .....	2·30     ,,	8·3     ,,
,,	,,     ,, (Irish Corner Sew. Farm) .....	2·03     ,,	8·0     ,,
,,	Finchley (Victoria Public Park) .....	2·23     ,,	8·2     ,,
,,	,,     ,, (Etchingham Park) .....	2·12     ,,	7·9     ,,

III.	North Finchley.....	1·94 in. or	7·5 per cent.
„	Mill Hill (Tennyson Road) .....	2·12 „	8·1 „
„	„ „ (The Hollies) .....	2·34 „	9·0 „
„	Elstree (Aldenham House).....	2·60 „	9·9 „
„	Watford (Colne Valley W.W.).....	2·71 „	10·1 „
„	„ (London Orphan Asylum).....	2·75 „	10·0 „
„	„ (Weetwood) .....	2·65 „	9·2 „
IV.	Leyton (Town Hall).....	1·75 „	7·8 „
„	Lea Bridge.....	1·76 „	8·0 „
XI.	Pandy (Trewyn) .....	3·13 „	7·3 „
XX.	Killaloe .....	3·48 „	6·9 „

**August 7th.**

Thunderstorms affected a large part of the west of England and Wales, and out of about 20 M that were recorded two exceeded the limits of those which can be ignored. The very high figure at Llyn Llydaw Copper Mine (5·42 in.) is not well supported by the neighbouring record at Llyn Llydaw Intake (2·68 in.), but, though the gauges are near together, the conditions in that rugged and elevated region are such that large differences may be expected. (Compare January 1st.)

XI.	Blaenau Festiniog (Oakley Quarries)...	2·63 in. or	2·8 per cent.
„	Snowdon (Llyn Llydaw Copper Mine)...	5·42 „	2·8 „

**August 14th.**

A widespread rain affecting the western Midlands and the north-west of England brought M to about 130 stations, but the amounts were so moderate that not a single instance can be quoted.

**August 28th.**

About a dozen stations in the western Highlands had M, of which three are

XV.	Morvern (Kingairloch) .....	2·92 in. or	3·1 per cent.
„	Ballachulish (Glencoe) .....	2·65 „	3·3 „
„	Ardgour .....	2·86 „	3·1 „

**October 5th.**

An unusually intense and local rain for the month of October, yielding the M at only four stations closely adjacent to each other, at two of which the fall was heavy, as noted below.

X.	Gosforth (Bolton Hall) .....	2·82 in. or	4·5 per cent.
„	„ (Ellerslie) .....	2·60 „	4·5 „

**October 14th.**

Nearly 200 stations, chiefly in the south of England, recorded their M, but the amounts were so small that none reached the limits for quotation.



northwards and had its centre off the Firth of Forth at 6 p.m., and continuing in the same direction was to the east of Shetland at 8 a.m. on the 16th. During the rainfall day of the 15th the centre of the depression skirted the whole length of the south and east of Scotland, and the heavy precipitation occurred, as is usual in such cases, entirely to the left of the track. An examination of the map shows that there were three areas of exceptionally high rainfall, one in the south-west, with more than 2 inches in the south of Ayr and the north of Wigtown and Kirkcudbright. The second and largest was in the south of the Lowland Plain, where more than 2 inches fell over all the country between the Firth of Forth and the Firth of Clyde, and more than 3 inches in the south of Edinburgh and round Bathgate. The third wet area was separated from the other two by a comparatively dry belt, and included a small patch with more than 2 inches in Banff and Morayshire. The storm was accompanied by thunder and lightning, and in the Edinburgh district nearly all the rain fell before 9 p.m. In a case of this sort the time of fall is particularly interesting, and we regret that so little information on the subject is available. It appears however, that the bulk of the rain fell earlier in the south, and later in the north-east of Scotland.

The fall was a typical autumnal cyclonic rain, sharing to some extent the characteristics of a thunderstorm rain, and very similar in general features to the rain of October 17th–19th, 1906, shown on p. [112] of *British Rainfall*, 1906.

The areas as measured on the large scale map are as follows :—

	Area, sq. miles.	General Rainfall, inches.	Volume of Rain, sq. miles x inches.
Over 3 inches .....	43	3·10	133
2-3       ,,       .....	1950	2·29	4466
1-2       ,,       .....	8833	1·44	12719
Total over 1 inch..	10,826		17,318

The general rainfall of the whole area with more than an inch was thus 1·60 in.

XIII.	Drummore [Musselburgh] .....	2·30 in. or	7·6 per cent.
,,	Pentland Hills (Glencorse Reservoir) ...	2·79   ,,	6·5   ,,
,,	Liberton (Alnwick Hill) .....	3·10   ,,	9·3   ,,
,,	Dalkeith Gardens.....	2·19   ,,	8·2   ,,
,,	Edinburgh (R. Obs., Blackford Hill) ...	3·12   ,,	10·3   ,,
,,	Corstorphine House .....	2·95   ,,	8·5   ,,
,,	Musselburgh (Levenhall) .....	2·35   ,,	8·1   ,,
,,	Edinburgh (University) .....	2·78   ,,	8·6   ,,
,,	(City Observatory) .....	2·11   ,,	7·8   ,,
,,	Leith .....	2·61   ,,	8·5   ,,

XIII.	Davidson's Mains (Broomfield).....	2·77 in. or	9·4 per cent.
„	Bathgate (Boghead House).....	3·24 „	6·9 „
„	Dalmeny House.....	2·40 „	7·5 „
XV.	Dunoon (Reservoir) .....	2·58 „	2·9 „
XVI.	Alva House.....	2·68 „	5·9 „
XVII.	Keith Station.....	2·53 „	7·4 „

### October 16th.

While the depression producing the heaviest rainfall for Scotland was disappearing off Shetland, at 8 a.m. on the 16th, another and much larger and deeper depression was forming in the Bay of Biscay; by 6 p.m. it had moved to Brittany, and the centre remained nearly stationary over the western part of the English Channel until the depression filled up on the 17th. It has more than once been noticed that when a deep depression suddenly changes its direction (as in the Irish rain of August 25th, 1905), or remains for a long time in one place (as in the Lee valley rain of June 14th, 1903), falls of a very exceptional character are to be found, and the present occasion is an excellent example of the relationship holding good. The highest rainfall we quote, that at Westcombe, Kingsbridge, 4·86 in., would have been at the head of the list for the year were it not for two falls of over 5 inches reported from Llyn Llydaw, on the slopes of Snowdon. As we have pointed out in referring to those falls, on January 1st, and August 7th, there is a want of corroboration that prevents us from viewing them with perfect confidence, though not enough grounds for doubt to justify us in expressing suspicion by means of a (?). The Kingsbridge record admits of no doubt at all, as a reading of 4·63 in. was recorded at Fallapit, about 4 miles distant (*Met. Mag.*, November, 1907, p. 196), though we have not succeeded in obtaining a copy of the year's record, and so cannot quote it below.

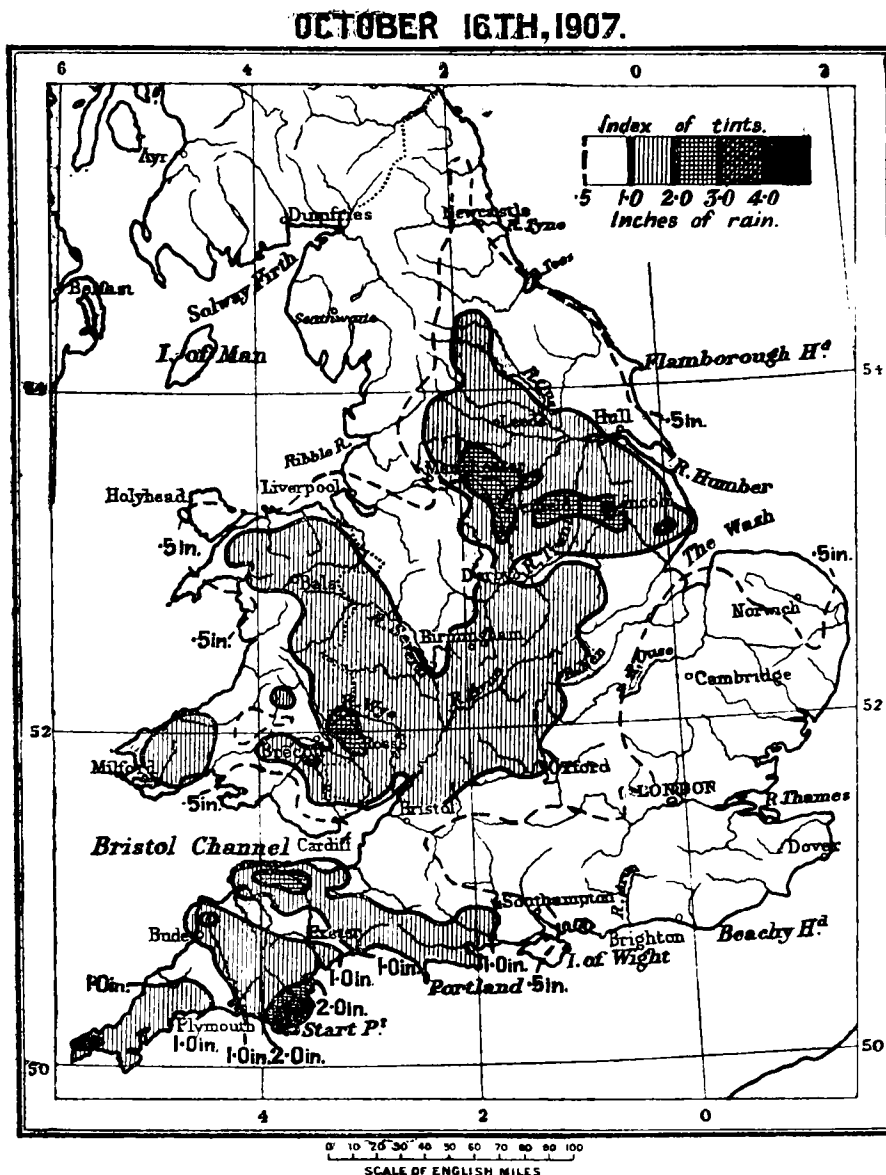
There were more than 600 M recorded, and the list of 38 notable falls quoted below is the longest we have to offer this year.

The map is an interesting one and somewhat complicated, because although the effect of the shallow cyclone of the 15th had completely passed away, the deep cyclone of the 16th appeared to fill up partially without travelling onward, and then to merge into a still larger depression which deepened from the west of Ireland on the 17th, and brought a number of heavy falls of rain on that day in the north-east of Scotland. The distribution of pressure on the 16th and 17th was such as to bring practically the whole of the British Isles within the sweep of a strong easterly or north-easterly



wind, a condition very favourable to heavy falls of rain, when it results from a cyclonic distribution of pressure.

The map shows that the very wet area round Kingsbridge was of very small size, and that the peninsula of Cornwall and Devon was



occupied by three separate splashes of rainfall exceeding 1 inch, separated by slightly drier belts. Towards one extremity of each splash there was a small area with more than 2 inches, but only in South Devon did this enclose an area exceeding 3 and 4 inches. Going from Land's End north-eastward the three wet bands, though

approximately equally spaced, grew larger, in each case crossing the peninsula from sea to sea, and measuring within the 1 inch line respectively 760, 1440, and 1940 square miles. A much wider dry belt followed to the north, and then a huge area of 17,000 square miles with more than 1 inch of rain in the 24 hours stretched north-eastward from South Wales to Yorkshire. Within this the wettest places, where the rainfall exceeded 2 inches, were in South Wales, and again in a band parallel to the south-western splashes, but running from Lincolnshire through Nottinghamshire to the West Riding. At one point the falls exceeded 3 inches.

The general outline of this rain was the characteristic one of a band running from south-west to north-east but broken into parallel transverse bands of alternately high and low rainfall. The more detailed mapping of individual falls of rain, which is becoming possible each year, appears to point towards a wave-like structure in the rain-splash but data are wanting to show whether the heavy falls occur simultaneously or successively. In this instance, curiously enough, all the self-recording observatories of the Meteorological Office, at Valencia, Aberdeen, Falmouth, and Kew, were in the dry portions of the country, Falmouth alone having a rainfall just exceeding 1 inch.

Measurements on the large scale map from which the illustration here given is reduced, give the following results :—

	Area, sq. miles.	General Rainfall, inches.	Volume of Rain, sq. miles x inches.
Over 4 inches.....	11	4·40	48
3—4    ,,    .....	76	3·41	259
2—3    ,,    .....	1209	2·38	2877
1—2    ,,    .....	19859	1·38	27405
Total over 1 inch		21,155	30,589

From this a general rainfall of 1·45 in. for the whole area with more than an inch of rain is deduced.

V.	Kingsbridge (Collapit Creek).....	3·04 in. or	7·5 per cent.
,,	,,    (Westcombe) .....	4·86   ,,	9·4   ,,
,,	Start Bay (Slapton) .....	2·75   ,,	6·1   ,,
,,	Dartmouth (Redlap House) .....	3·41   ,,	9·2   ,,
,,	Brixham (Lindthorpe) .....	2·70   ,,	7·0   ,,
VII.	Lincoln (Branston Hall) .....	2·88   ,,	11·2   ,,
,,	,,    (Boultham) ..	2·80   ,,	11·9   ,,
,,	,,    (Doddington Rectory) .....	2·17   ,,	9·2   ,,
,,	,,    (Skellingthorpe Hall) .....	2·87   ,,	11·4   ,,
,,	Horncastle (Revesby) .....	2·24   ,,	8·7   ,,
,,	East Keal Rectory .....	1·85   ,,	7·6   ,,
,,	Lincoln (St. Botolph's).....	3·40   ,,	12·5   ,,

VII.	Lincoln (Sessions House) .....	3·00 in. or 12·3 per cent.
„	„ (The Close) .....	2·50 „ 10·2 „
„	„ (D'Isney Place) .....	3·00 „ 11·8 „
„	„ (Cottesford Place).....	3·04 „ 11·7 „
„	Ollerton (Boughton W. W.) .....	1·91 „ 7·9 „
„	„ (Thoresby Gardens).....	2·03 „ 7·8 „
„	Welbeck Gardens .....	2·30 „ 8·7 „
„	Retford (Grammar (School) .....	2·30 „ 9·3 „
„	„ (Morton Hall).....	1·97 „ 8·2 „
„	Worksop (Wigthorpe Hill).....	2·10 „ 8·6 „
„	„ (Hodsock Priory).....	2·05 „ 8·7 „
„	Totley Hall.....	2·65 „ 6·8 „
„	Hathersage.....	2·66 „ 7·4 „
„	Bamford .....	2·85 „ 7·6 „
„	Derwent Dale (Walker House).....	2·65 „ 5·4 „
„	„ „ (Ridge Farm).....	3·02 „ 6·7 „
IX.	Dinnington Hall .....	2·17 „ 8·0 „
„	Derwent Dale (Howden House) .....	2·89 „ 6·0 „
„	Rotherham (Thrybergh) .....	2·01 „ 7·7 „
„	Sheffield (Chapelton).....	2·08 „ 7·7 „
„	Doncaster (Firsby Reservoir).....	2·07 „ 7·6 „
„	Wentworth Woodhouse .....	2·13 „ 7·6 „
„	Langsett Moor (Upper Midhope) .....	2·54 „ 5·4 „
„	Wath-upon-Dearne (Chapel Street).. ..	2·01 „ 7·8 „
„	Bolton-upon-Dearne ....	1·94 „ 7·8 „
„	Holmbridge (Yateholme) .....	2·80 „ 5·0 „

#### October 30th.

**M** at about 40 stations in the east of Ireland and the north of England ; but only one of the number exceeded 2 inches, and that alone has to be mentioned.

XXI. Glen-na-Smoel (Water Works)..... 3·44 in. or 6·3 per cent.

#### November 2nd.

A local rain in Cornwall enabled about 20 stations to record a modest **M**, only one reaching the limits required for insertion.

V. Truro (W.W. Lower Tregurrow)..... 2·55 in. or 5·7 per cent.

### Part II.—Abstract.

The year 1907 is distinguished by the comparative insignificance of its heavy falls on rainfall days. The number of falls quoted in the Chronicle is 121, and a smaller number has only twice been recorded since the present limits of 2·50 in., or 7·5 per cent. of the annual fall, were adopted in 1893. The smallest numbers of **M** published have been as follows :—

	Year.	No. of <b>M</b> printed.	Total No. of <b>M</b> .	Percentage of total printed.
1894	.....	108	2321	4·3
1895	.....	125	2423	5·1
1896	.....	105	2465	4·6
1907	.....	121	3465	3·5

It thus appears that although fewer **M** were twice recorded, the number of stations reporting in those years was so much smaller that the percentage of the stations yielding **M** large enough to notice was considerably greater than in 1907. If 3·5 per cent. of the total **M** had been published in 1894 the number to print would only have been 81. We are thus justified in saying that since the present limits were introduced fourteen years ago, there has not been an occasion when so small a proportion of the wettest days had a rainfall heavy enough to call for notice as in 1907. The absence of large falls was apparent in looking through the returns as they came in, a very large number having no day with so much as 1 inch of rain.

The usual tables for comparison have been compiled as in former years, but from the nature of the observations dealt with it is necessary to accompany them by some explanations.

Table I. gives the 16 highest records of daily rainfall for the year. The loss of Ben Nevis Observatory affects this comparison more than others; and it is unfortunate this year that some slight tincture of doubt affects the figures for Snowdon. That the two gauges at Llyn Llydaw should have their maxima on different days is not very surprising, but that the amount recorded at the gauge which was not the maximum should, in each case, be less than half the other, shows that on both occasions the heavy fall must have been very exceptionally local. The case which comes third is much the most interesting, and we understand that nearly as much rain fell at another station  $4\frac{1}{2}$  miles distant, the full record of which we were unable to secure. Winter cyclones are not, perhaps, so prominent in this list as usual, but the summer thunderstorm rains are well represented by those of July 21st and 22nd, and the intermediate autumnal storms by those of October 15th and 16th.

Table II. shows that the mean of the 16 highest falls is slightly above the average, and that the "absolute highest" is also considerably greater than usual.

In Table III. the heavy falls at dry stations are brought together by selecting the sixteen highest percentages of annual rainfall which were yielded by one day. Here the great fall of October 16th, at Lincoln, claims half the entries; for though the area of heavy rain was small, rainfall stations are unusually numerous in that neighbourhood. The Edinburgh fall of October 15th also figures in both tables, and July 21st and 22nd, to which we have devoted much space in Part I., are the only other dates represented. Table IV.

shows that the mean of the 16 maximum percentages in 1907 was a little above the average, but the highest percentage of the year was rather below the average.

In Table V. we have a more stable basis of comparison with past years, because dealing with the whole number of **M** the influence of a storm of small area in one locality is largely eliminated. Of course, some parts of the country are much more richly beset with rain gauges than others, but the rate of increase is roughly proportional to the present density, and so the total figures remain fairly comparable. The total number of returns from which **M** can be extracted is 3465 for 1907, an increase of 100 on 1906, and an increase of 1000 on 1896, or double the number available in 1886. Although the list is short this year, these figures suffice to show how rapidly the labour of preparing it is increasing.

The mean of all the **M** for the year is 4.1 per cent. of the mean of all the annual totals, or 0.4 below the average, while the mean amount of all the **M** is 1.32 in., or .14 in. below the average. This result is somewhat surprising when the small number of **M** above 2.50 in., or 7.5 per cent., is remembered; but the mean percentage has only been lower on 6 occasions in the 42 previous years, and the mean amount has also been only 6 times lower.

Table VI. gives a comparison of the number of **M** exceeding 2 and 3 inches respectively since 1882, with the percentage which the number for each year makes of the total number. It must be remembered that only the wettest day of each return is dealt with, the actual number of days with different intensities of rainfall being dealt with separately. The number of **M** exceeding 2 inches was only once lower, in the memorable dry year 1887, when only 52 or 2.7 per cent. of the **M** exceeded 2 inches; in 1907 3.5 per cent. was the number, and the nearest to that was 5.8 per cent. in 1902. The number of **M** exceeding 3 inches is more liable to fluctuation, as the number is always small and the areas affected at one time are never large, so that when the heaviest falls occur in districts containing few rain gauges they may almost entirely escape detection; the number in 1907 was 40, and there were fewer in 15 out of the 26 years compared, though the percentage, which is the number most useful for comparison, was lower only in 4 years.

*Summary of Maximum Falls in 1907.*

	No. of Records.	Mean Percentage.	Mean Amount. in.	Falls of 2·00 in. or more.	Falls of 3·00 in. or more.
England and Wales	2915	4·2	1·30	97	18
Scotland.....	342	3·9	1·59	21	3
Ireland .....	208	3·1	1·21	2	2
British Isles ...	3465	4·1	1·32	120	23

Splitting up the returns so as to separate the three kingdoms we get the foregoing Table, and as this has now been given for three years, we may proceed to compare the results for each country separately.

*Comparison of Maximum Falls.*

	No. of Records.	Mean Percentage.	Mean Amount. in.	Falls of 2·00 in. or more.	Falls of 3·00 in. or more.
ENGLAND AND WALES—					
1905.....	2719	4·9	1·28	176	12
1906.....	2846	4·6	1·31	310	24
1907.....	2915	4·2	1·30	97	18
SCOTLAND—					
1905.....	332	3·5	1·29	32	2
1906.....	325	3·9	1·68	78	6
1907.....	342	3·9	1·59	21	3
IRELAND—					
1905.....	199	5·9	1·88	72	31
1906.....	194	3·3	1·14	7	0
1907.....	208	3·1	1·21	2	2

With the exception of Ireland in 1905, when the heavy falls were extraordinarily large, the mean percentage of the annual rainfall furnished by the wettest day is seen to be greatest in England and Wales, less in Scotland, and least in Ireland ; while the actual amount of the rainfall of the wettest day is greatest in Scotland.

TABLE I.—*Maximum Falls in 1907.*

Date.	Div.	Station.	Depth.	Per Cent.	Total.
Jan. 1 ...	XI.	Snowdon, Llyn Llydaw Intake	5·96 in.	3·9	154·34 in.
Aug. 7 ...	„	„ „ „ „ Copper Mine	5·42 „	2·8	196·16 „
Oct. 16 ...	V.	Kingsbridge, Westcombe ...	4·86 „	9·4	51·71 „
Mar. 16 ...	X.	Borrowdale, Seathwaite ...	4·25 „	3·3	128·81 „
Feb. 16 ..	„	Ambleside, Skelwith Bridge	4·09 „	4·1	99·34 „
„ „ ...	„	Dungeon Ghyll .....	3·75 „	3·5	105·67 „
July 22 ...	XX.	Killaloe.....	3·48 „	6·9	50·47 „
Mar. 16 ...	X.	Borrowdale, Grange .....	3·46 „	4·2	83·05 „
Oct. 30 ...	XXI.	Glen-na-Smoel Water Works	3·44 „	6·3	54·34 „
„ 16 ...	V.	Dartmouth, Redlap House..	3·41 „	9·2	37·21 „
„ „ ...	VII.	Lincoln, St. Botolphs.....	3·40 „	12·5	27·32 „
Feb. 16 ...	X.	Elterwater Hall .....	3·40 „	3·6	94·73 „
July 21 ...	V.	Bath, Somerset Place.....	3·27 „	9·0	36·38 „
Oct. 15 ..	XIII.	Bathgate, Boghead House...	3·24 „	6·9	47·16 „
July 22 ...	XI.	Pandy, Trewyn .....	3·13 „	7·3	42·83 „
Oct. 15 ...	XIII.	Edinburgh, R. Obs., Blackford Hill	3·12 „	10·3	30·18 „

TABLE III.—*Maximum Percentages in 1907.*

Date.	Div.	Station.	Per cent.	Fall.	Total.
Oct. 16 ...	VII.	Lincoln, St. Botolphs .....	12·5	3·40 in.	27·32 in.
„ „ ...	„	„ Sessions House ...	12·3	3·00 „	24·47 „
„ „ ...	„	„ Boultham .....	11·9	2·80 „	23·46 „
„ „ ...	„	„ D'Isney Place .....	11·8	3·00 „	25·48 „
„ „ ...	„	„ Cottesford Place ...	11·7	3·04 „	25·98 „
„ „ ...	„	„ Skellingthorpe Hall	11·4	2·87 „	25·25 „
„ „ ...	„	„ Branston Hall .....	11·2	2·88 „	25·70 „
„ 15 ...	XIII.	Edinburgh, R. Obs., Blackford Hill	10·3	3·12 „	30·18 „
„ 16 ...	VII.	Lincoln, The Close.....	10·2	2·50 „	24·59 „
July 22 ...	III.	Watford, Colne Valley W. W.	10·1	2·71 „	26·68 „
„ „ ...	„	„ London Orphan Asylm.	10·0	2·75 „	27·45 „
„ „ ...	„	„ Elstree, Aldenham House...	9·9	2·60 „	26·36 „
„ 21 ...	VI.	Gloucester, Wotton Asylum	9·8	2·82 „	28·79 „
Oct. 15 ...	XIII.	Davidson's Mains, Broomfield	9·4	2·77 „	29·60 „
„ „ ...	„	„ Liberton, Alnwick Hill ...	9·3	3·10 „	33·29 „
„ 16 ...	V.	Kingsbridge, Westcombe ...	9·4	4·86 „	51·71 „

TABLE II.—*Comparison of Maximum Falls with those in previous years.*

MEAN OF 16 HIGHEST.				ABSOLUTE HIGHEST.			
Years.	Depth.	Per Cent.	Mean total fall at these stations.	Depth.	Per Cent.	Station.	Division.
	in.		in.	in.			
1865 ...	3·67	6·4	61·8	6·41	5·5	Seathwaite.....	X.
1866 ...	3·40	4·4	86·2	6·38	3·6	" .....	II.
1867 ...	3·17	9·0	m 42·5	4·78	17·7	Hartlip .....	XV.
1868 ...	3·32	6·1	65·9	5·60	4·8	Camusinas.....	X.
1869 ...	3·68	5·0	77·7	6·70	4·5	Seathwaite.....	XIX.
1870 ...	3·20	7·5	43·8	6·00	17·1	Tongue .....	V.
1871 ...	3·08	5·7	61·6	4·24	9·6	Melbury.....	X.
1872 ...	4·10	6·6	73·1	5·82	3·2	Seathwaite.....	"
1873 ...	2·97	6·2	60·7	4·20	m 2·9	" .....	XXIII.
1874 ...	3·96	4·6	86·5	5·32	4·4	Bryn Gwynant .....	XVIII.
1875 ...	4·52	7·8	63·9	5·33	9·7	Newport W.W. ...	XI.
1876 ...	3·37	5·9	57·6	4·50	5·5	Foffany .....	"
1877 ...	3·77	4·6	93·4	4·98	5·3	Skye, Portree.....	XXI.
1878 ...	3·57	7·4	57·2	4·24	8·6	Springfield .....	X.
1879 ...	3·66	9·5	50·4	m 4·05	4·1	Little Langdale.....	"
1880 ...	3·50	7·7	51·1	4·75	3·9	Seathwaite.....	XXVIII.
1881 ...	3·65	4·9	83·1	5·42	4·7	Sligachan ... ..	X.
1882 ...	3·28	4·5	84·3	4·51	3·0	Seathwaite .....	XXI.
1883 ...	3·69	6·1	72·4	5·27	9·0	Glen-na-Smoel .....	X.
1884 ...	3·45	4·7	80·7	6·78	5·0	Seathwaite .....	"
1885 ...	3·45	5·8	68·2	4·62	3·2	" .....	V.
1886 ...	3·77	7·7	58·7	4·20	9·9	Little Bredy .....	XXII.
1887 ...	m 2·83	6·1	56·8	4·93	13·0	Galway Queen's Coll.	X.
1888 ...	4·20	5·9	77·0	5·20	5·4	Wythburn Vic.....	IV.
1889 ...	3·89	9·9	49·2	4·45	16·5	N. Ockendon.....	XVIII.
1890 ...	5·01	6·9	95·1	7·29	3·7	Ben Nevis Obs.....	X.
1891 ...	4·38	4·7	M 108·4	6·14	4·2	Seathwaite.....	"
1892 ...	4·47	7·9	70·1	5·80	4·5	" .....	XXIII.
1893 ...	3·84	5·8	89·6	4·96	3·5	" .....	X.
1894 ...	3·95	5·7	83·0	7·74	5·1	Ben Nevis Obs.....	XXI.
1895 ...	3·80	7·2	62·2	4·83	16·1	Mellington Hall ...	X.
1896 ...	3·31	5·9	67·5	4·59	3·7	Seathwaite .....	"
1897 ...	M 5·24	5·3	95·1	M 8·03	5·6	" .....	IX.
1898 ...	4·61	5·3	100·8	6·70	M 18·1	Angerton Hall.....	X.
1899 ...	3·92	5·0	86·6	5·21	5·6	Borrowdale, Grange	"
1900 ...	4·29	8·0	64·1	5·40	11·9	Ilkley, Cherry Bank	X.
1901 ...	4·21	9·9	53·5	5·66	5·7	Dungeon Ghyll ...	XVIII.
1902 ...	3·79	7·9	59·4	5·92	3·8	Ben Nevis Obs. ...	"
1903 ...	4·13	7·2	84·7	4·78	2·2	" .....	X.
1904 ...	4·02	7·4	69·5	5·62	6·0	Skelwith Bridge ...	XXI.
1905 ...	3·90	M 11·5	42·6	5·71	14·0	Glen-na-Smoel.....	X.
1906 ...	3·63	m 4·3	90·0	6·15	4·7	Seathwaite .....	"
Average	3·80	6·6	71·1	5·46	7·1	.....	...
1907 ...	3·86	6·5	77·5	5·96	3·9	Snowdon, Llyn Llydaw	XI.
Diff. ...	+·06	—0·1	+6·4	+·50	—3·2	.....	...



TABLE IV.—*Comparison of Maximum Percentages with those in previous years.*

MEAN OF 16 HIGHEST.				ABSOLUTE HIGHEST.			
Years.	Per Cent.	Depth.	Mean total fall at these Stations.	Per Cent.	Depth.	Station.	Division.
		in.	in.		in.		
1865 ...	9·9	2·62	28·4	13·0	4·40	Fleckney.....	VII.
1866 ...	8·1	2·31	29·3	10·0	2·48	Burton .....	VI.
1867 ...	11·0	2·85	25·3	17·7	4·78	Hartlip .....	II.
1868 ...	8·6	2·55	30·1	11·0	4·00	Tongue .....	XIX.
1869 ...	7·9	2·17	27·9	10·0	3·40	Tillydesk .....	XVII.
1870 ...	10·0	2·34	22·9	17·1	6·00	Tongue ...	XIX.
1871 ...	9·0	2·43	26·8	11·5	3·62	Warter .....	IX.
1872 ...	8·1	3·43	M 42·5	10·0	3·70	Hillington Hall.....	IV.
1873 ...	9·7	2·39	24·7	11·8	2·77	Oscott .....	VI.
1874 ...	9·2	2·16	23·7	11·9	2·50	Welwyn .....	III.
1875 ...	10·2	M 3·76	37·5	13·2	3·95	Letheringsett.....	IV.
1876 ...	m 7·4	2·49	33·7	m 8·5	3·70	Cragside .....	X.
1877 ...	8·2	2·73	33·1	9·3	3·09	Wellington.....	VI.
1878 ...	10·2	3·05	30·0	11·8	3·90	Haverstock Hill.....	I.
1879 ...	10·9	3·31	30·5	12·3	3·80	Cambridge M. V. ....	III.
1880 ...	9·5	3·06	32·3	11·7	3·34	Marmont Priory L. ...	„
1881 ...	8·1	2·42	30·3	10·6	3·20	Aboyne Castle.....	XVII.
1882 ...	7·7	2·54	33·4	9·1	2·80	Bothalhaugh .....	X.
1883 ...	9·7	3·00	31·1	12·3	4·31	Skegness .....	VII.
1884 ...	11·7	2·33	m 20·0	13·8	2·66	Diss (Thelveton) .....	IV.
1885 ...	8·9	2·71	30·7	9·6	2·62	Beccles, Ellough .....	„
1886 ...	10·1	3·32	32·7	11·5	4·10	Methley Park.....	IX.
1887 ...	9·5	m 2·11	21·9	13·0	4·93	Galway, Queen's Coll...	XXII.
1888 ...	10·9	3·05	28·3	11·8	3·24	Rothamstead .....	III.
1889 ...	12·7	3·51	27·8	16·5	4·45	N. Ockendon.....	IV.
1890 ...	M 14·4	3·60	25·1	17·2	3·68	Slough, Langley.....	III.
1891 ...	9·7	2·67	27·6	14·4	4·00	Sunnyside Asylum ...	XVI.
1892 ...	12·3	3·37	27·4	15·0	4·27	Tyntesfield .....	V.
1893 ...	12·0	2·81	23·4	16·2	4·48	Cranmer Hall.....	IV.
1894 ...	9·0	2·54	28·3	11·1	3·56	Sidcup.....	II.
1895 ...	10·0	2·87	28·8	16·1	4·83	Mellington Hall.....	XI.
1896 ...	9·5	2·50	26·3	11·1	2·78	Barkby .....	VII.
1897 ...	10·8	2·48	23·2	14·1	m 2·40	Chatteris, H. L. ....	III.
1898 ...	11·5	2·92	25·0	M 18·1	M 6·70	Angerton Hall.....	X.
1899 ...	11·3	2·53	22·6	14·6	3·10	Wallingford .....	II.
1900 ...	11·3	3·37	29·8	13·1	4·50	Gilstead Filters.....	IX.
1901 ...	14·1	3·37	24·0	17·9	4·24	Maidenhead, The Firs	II.
1902 ...	12·7	2·90	22·8	15·5	3·51	Esher Sewage Works.	„
1903 ..	10·6	M 3·76	35·6	12·8	4·41	Dartford, West Hill House	„
1904 ...	12·5	2·87	23·0	15·8	3·48	Leamington, Binswood Av.	VI.
1905 ...	13·8	3·67	26·7	14·9	3·98	Cofton Vicarage .....	V.
1906 ...	10·5	2·51	24·0	11·9	2·50	Cambridge, Herschel House	III.
Aver....	10·3	2·84	28·1	13·1	3·77	.....	...
1907 ...	10·7	3·01	28·5	12·5	3·40	Lincoln, St. Botolph's	VII.
Diff. ...	+ 0·4	+ ·17	+ ·4	— 0·6	— ·37	.....	...

TABLE V.—*Comparison of the Mean of all the Maximum Falls of 1907 with similar data for previous years.*

Years.	Number of Returns.	Mean Percentage.	Mean Amount.	Mean Total Fall in year.	Ratio taking 33=100.	Total Fall being assumed =33in. Mean Max. =
			in.	in.		
1865.....	481	5.1	1.70	33	100	5.2 per cent
1866.....	590	3.7	1.48	40	121	4.5 „
1867.....	584	4.6	1.44	31	94	4.4 „
1868.....	676	4.3	1.43	33	100	4.3 „
1869.....	637	4.2	1.42	34	103	4.3 „
1870.....	687	4.9	1.30	27	82	3.9 „
1871.....	752	4.9	1.49	30	91	4.5 „
1872.....	743	m 3.4	1.59	M 47	M 142	4.8 „
1873.....	809	4.6	1.35	29	88	4.1 „
1874.....	1010	4.4	1.41	32	97	4.3 „
1875.....	1081	5.0	M 1.83	37	112	M 5.5 „
1876.....	1112	3.9	1.49	38	115	4.5 „
1877.....	1180	3.8	1.56	41	124	4.7 „
1878.....	1186	4.3	1.49	35	106	4.5 „
1879.....	978	4.2	1.52	36	109	4.6 „
1880.....	1117	4.8	1.72	36	109	5.2 „
1881.....	1194	4.1	1.45	35	106	4.4 „
1882.....	1463	3.6	1.42	39	118	4.3 „
1883.....	1505	4.0	1.41	35	106	4.3 „
1884.....	1691	4.8	1.32	28	85	4.0 „
1885.....	1801	4.5	1.41	31	94	4.3 „
1886.....	1718	4.6	1.64	35	106	5.0 „
1887.....	1921	4.5	m 1.14	m 25	m 76	m 3.5 „
1888.....	1974	4.4	1.41	32	97	4.3 „
1889.....	1812	4.8	1.41	29	88	4.3 „
1890.....	2081	5.0	1.46	29	88	4.4 „
1891.....	2218	4.1	1.47	35	106	4.5 „
1892.....	2231	5.4	1.62	30	91	4.9 „
1893.....	2267	4.8	1.30	27	82	3.9 „
1894.....	2321	4.2	1.46	35	106	4.4 „
1895.....	2423	4.5	1.37	30	91	4.2 „
1896.....	2465	4.4	1.33	30	91	4.0 „
1897.....	2598	4.1	1.36	33	100	4.1 „
1898.....	2691	5.0	1.42	28	85	4.3 „
1899.....	2791	4.7	1.42	30	91	4.3 „
1900.....	2702	4.6	1.61	35	106	4.9 „
1901.....	2747	M 5.7	1.58	28	85	4.8 „
1902.....	2832	4.4	1.20	27	82	3.6 „
1903.....	2936	4.0	1.67	41	124	5.1 „
1904.....	3093	4.6	1.31	29	88	4.0 „
1905.....	3250	4.8	1.31	27	82	4.0 „
1906.....	3365	4.5	1.40	31	94	4.2 „
Average.	1755	4.5	1.46	33	100	4.4 „
1907.....	3465	4.1	1.32	32	97	4.0 „
Diff.....	+1710	0.4	— .14	— 1	— 3	— 0.4 „

TABLE VI.—*Maximum Falls in each year exceeding 2·00 in., and exceeding 3·00 in.*

Year.	Total number of records.		Falls of 2·00 in. or more.		Falls of 3·00 in. or more.	
			Number.	Per cent. of total No.	Number.	Per cent. of total No.
1882	.....	1463	.....	140	.....	9·6
3	.....	1505	.....	170	.....	11·3
4	.....	1691	.....	138	.....	8·2
5	.....	1801	.....	179	.....	10·0
6	.....	1718	.....	158	.....	9·2
7	.....	1921	.....	52	.....	m 2·7
8	.....	1974	.....	374	.....	18·9
9	.....	1812	.....	170	.....	9·4
1890	.....	2081	.....	345	.....	16·6
1	.....	2218	.....	270	.....	12·2
2	.....	2231	.....	470	.....	21·1
3	.....	2267	.....	183	.....	8·1
4	.....	2321	.....	313	.....	13·5
5	.....	2423	.....	249	.....	10·3
6	.....	2465	.....	249	.....	10·1
7	.....	2598	.....	275	.....	10·6
8	.....	2691	.....	373	.....	13·9
9	.....	2791	.....	283	.....	10·0
1900	.....	2702	.....	641	.....	M 23·7
1	.....	2747	.....	497	.....	18·1
2	.....	2832	.....	163	.....	5·8
3	.....	2936	.....	625	.....	21·3
4	.....	3093	.....	246	.....	8·0
5	.....	3250	.....	280	.....	8·6
6	.....	3365	.....	395	.....	11·7
Mean	.....	2356	.....	290	.....	12·1
1907	.....	3465	.....	120	.....	3·5
Diff.	.....	+1109	.....	-171	.....	-8·6
					.....	-17
					.....	-1·0

## THE DISTRIBUTION OF RAINFALL IN TIME.

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WE consider that this is one of the most important sections of the volume, and it is certainly that which demands and receives the greatest amount of anxious thought and laborious computation. In no other section is the scrupulous accuracy of the observer so important, for a slip which would not perceptibly affect the value of an annual total, or even of a daily fall, might break a drought or make a rainspell. If we had time and space and money to deal in as much detail with all the returns, as with the 73 chosen records, we could find safety in numbers as we do in treating maximum falls, and one return which appeared in error could be quietly ignored with no fear of vitiating the results. But the three conditions to which we have referred, limit us to the full treatment of only a small selection of stations, and we have to struggle as best we can to combine individual accuracy with representative position. Where stations are thinly scattered, as in Ireland, the failure to receive a return from a particular observer may necessitate a considerable re-arrangement, involving the omission as well as the addition of other stations. Thus, for example, the loss of Newtown Stewart made it necessary to take in two new stations in order to prevent the gap from being too large, and then to prevent the north of Ireland from being unduly weighted, one excellent station, Horn Head, had, most reluctantly, to be dropped. If those correspondents, who write at the rate of half-a-dozen or so a year to say that they will cease to observe because someone else a couple of miles away is sending a record, could only see how much thought and care are required to replace a representative station when it drops out, they would, we are sure, not stop their observations as they threaten on the ground of overcrowding. We earnestly appeal to all observers whose work is dealt with in this section not to slacken their vigilance and punctuality, for a delay of ten minutes in observing, during a shower, or a mistake of one-hundredth of an inch in measuring, may make all the difference in

the relative duration of droughts or rainspells, or in the number of days with rainfall of different intensities. The great difference between the number of days with  $\cdot 01$  in. recorded makes us anxious as it is, if not as to the conscientiousness of the observers, at least as to the graduation of the measuring glasses.

The general results may, we are confident, not only be trusted individually as accurate, but collectively as representative, so that the means may be taken as measuring the intensity and frequency of rainfall over the country as a whole.

Until 1903 droughts were treated at 50 selected stations, but in that year when the detailed study of rainfall intensity and rainspells was commenced the number of selected stations was increased to 73, uniformly distributed over the British Isles, and the same records used for all three discussions.

### **I.—Rain Days and Intensity of Rainfall in 1907.**

Although the number of rain days is quoted in the General Table for every daily record which is not obviously in error in this particular it is not possible to trust those figures with the same confidence as the total rainfall, and it is only in the last five years that we have ventured on any systematic use of the rain day numbers at all. The map here reproduced serves the double purpose of illustrating the number of rain days and showing the position of each of the 73 stations utilized in this section for the discussion of days, droughts and rain spells. The whole of Ireland and almost all of Scotland had more than 200 rain days, while the western third of Ireland and Scotland had more than 250 days, rising in some cases in the extreme west to nearly 280. Wales and the western half of England had more than 200 rain days, and so had a little of the east of Norfolk, while a number of rain days less than 175 was only found along the south coast, the Thames estuary, and in two irregular patches round Oxford and Cambridge respectively. The distribution of the number of days was roughly similar to that of the amount of rain, though as we shall see, the number of rain days for the year was excessive, and the rainfall did not diverge perceptibly from the average. This is brought out in the following table, in which it may be noted the average number of rain days is that of 12 years only as arrived at in *British Rainfall*, 1902, p. 37.

*Number of Rain Days and Total Fall compared with the Average.*

	Average 1891—1902.*			Year 1907.†			Difference from Average.		
	No. of Rain Days.	Total Fall.	Rate per Rain Day.	No. of Rain Days.	Total Fall.	Rate per Rain Day.	No. of Rain Days.	Total Fall.	Rate per Rain Day.
		in.	in.		in.	in.		in.	in.
England & Wales	181	35·57	·197	203	36·11	·178	+22	+ ·54	—·019
Scotland .....	206	43·93	·213	232	46·69	·201	+26	+2·76	—·012
Ireland .....	216	42·38	·196	240	41·01	·171	+24	—1·36	—·025
British Isles .....	197	39·63	·201	218	39·94	·183	+21	+ ·31	—·018

\* Average of 62 Stations.

† Average of 73 Stations.

The same differences from the average may perhaps appear more striking when expressed in percentages and compared with previous years.

*Difference from Averages of 1891—1902 expressed as percentages.*

	1903.		1904.		1905.		1906.		1907.	
	Rain Days.	Total R.	Rain Days.	Total R.	Rain Days.	Total R.	Rain Days.	Total R.	Rain Days.	Total R.
England & Wales	+17	+26	+4	—11	+3	—16	+6	+2	+12	+2
Scotland .....	+18	+35	+6	—3	+8	—2	+10	+10	+13	+6
Ireland .....	+17	+21	+7	—2	+2	—15	+7	—7	+11	—3
British Isles ...	+16	+26	+5	—8	+3	—12	+7	+2	+11	+1

While we have no reason to doubt the accuracy of the 12 years' averages, the fact that the last five years have all experienced more than the average number of rain days for each kingdom certainly suggests the possibility that the mean of a longer period than 12 years might yield a higher average. There is, however, no doubt that in 1907 with its practically average rainfall, the number of days on which rain fell was larger than usual: the fact appears prominently in the Tables, and many observers have called attention to it in their remarks. The mean intensity of daily rainfall is of course reduced in proportion to the increase in the number of days on which rain fell. The smallest mean daily intensity at the 73 stations was ·11 in. at Geldeston, near Beccles, and the largest ·38 in. at Dungeon Ghyll in the Lake District. At Seathwaite, which does not appear in the Table this year, the mean intensity was ·57 in. as it was in 1906 and 1905.

The discussion of rainfall data, according to the frequency with which falls of different amounts occur, has not been carried on for a

sufficiently long time to furnish a satisfactory standard of comparison, but we may now look at the results of five years. The large Table giving an analysis of the daily falls at the 73 stations, is the most



laborious piece of work in the volume, and despite the utmost care in the selection of stations and the critical examination of returns, it continues to show individual divergences that are extremely puzzling.

Why, for instance, should Louth have only 5 days with  $\cdot 01$  in. and Geldeston no less than 48? It is difficult to believe that there is so great a difference in the way in which rain falls at two stations in the east of England, and it seems natural to conclude that there is some difference in the way of determining the smallest amount to be recorded. Such extremes, high as well as low, are so rare that we may trust the means for large areas as being very near the truth and so proceed to refer to these separately.

### England and Wales.

#### *General Number of Days on which various amounts fell.*

Year.	in. $\cdot 01$	in. $\cdot 02\text{--}\cdot 04$	in. $\cdot 05\text{--}\cdot 09$	in. $\cdot 10\text{--}\cdot 24$	in. $\cdot 25\text{--}\cdot 49$	in. $\cdot 50\text{--}\cdot 99$	in. $1\cdot 00\text{--}1\cdot 99$	in. $2\cdot 00$ or over.	Total.
1903...	24	39	36	52	35	19	5	1	211
1904...	24	41	34	47	28	12	2	0	188
1905...	26	42	35	45	24	12	2	0	186
1906...	21	38	35	50	31	14	3	0	192
1907...	22	43	36	53	32	14	3	0	203

The regularity of these figures year after year is most striking, in fact it is so marked that one almost fears that the diverse individuality of contrasted parts of the country is so far neutralized on combination as to eliminate the characteristics of individual years. It is, however, somewhat remarkable to find that in 1907 days with falls from  $\cdot 02$  in. to  $\cdot 49$  in. were more numerous than even in 1903. It is noteworthy that the large number of rain days is not due to an increase in the number of small falls but to that of falls of the average amount, between  $\cdot 10$  in. and  $\cdot 24$  in.

### Scotland.

#### *General Number of Days on which various amounts fell.*

Year.	in. $\cdot 01$	in. $\cdot 02\text{--}\cdot 04$	in. $\cdot 05\text{--}\cdot 09$	in. $\cdot 10\text{--}\cdot 24$	in. $\cdot 25\text{--}\cdot 49$	in. $\cdot 50\text{--}\cdot 99$	in. $1\cdot 00\text{--}1\cdot 99$	in. $2\cdot 00$ or over.	Total.
1903...	21	39	39	63	48	27	7	0	244
1904...	19	42	42	58	36	18	4	0	219
1905...	19	43	40	61	37	19	3	0	222
1906...	18	42	37	60	44	20	4	1	226
1907...	20	45	40	62	42	19	4	0	232

The mean values for Scotland show the same close resemblance to the results of previous years; but as compared with 1906 there was an increase in the number of days with small falls, and a slight diminution in the number of days with falls more than  $\cdot 25$  in.



**Ireland.***General Number of Days on which various amounts fell.*

Year.	in. ·01	in. ·02-·04	in. ·05-·09	in. ·10-·24	in. ·25-·49	in. ·50-·99	in. 1·00-1·99	in. 2·00 or over.	Total.
1903...	23	41	42	72	50	20	4	0	252
1904...	24	42	41	67	40	15	2	0	231
1905...	20	46	46	63	31	13	2	0	221
1906...	16	44	42	75	40	13	1	0	231
1907...	18	46	47	74	39	14	2	0	240

The increase in the number of days with light falls (below ·25 in.) is more marked in Ireland than elsewhere, but otherwise the relation-ship between falls of various amount remains much the same.

Taking the British Isles as a whole the number of stations which did not receive a fall so great as 1 inch is seen to be 16 out of 73, a number which was only exceeded in 1905. The number of stations with a fall of 1 inch or more on one occasion, is less than in the preceding three years, but those recording such a fall three or four times is rather greater.

*Falls of 1·00 in. or more.*

## Number of Stations out of 73 reporting

	Never.	One occasion.	Twice.	Three or Four times.	Five or more times.
1903.....	1	6	13	25	27
1904.....	10	33	13	8	9
1905.....	23	19	9	12	10
1906.....	15	21	11	12	14
1907.....	16	17	12	15	13

*Frequency of Falls of Rain in 1907 reduced to 218 rain days.*

	·01 in.	·02-·04 in.	·05-·09 in.	·10-·24 in.	·25-·49 in.	·50-·99 in.	1·00-1·99 in.	2·00 in. and over.
<b>STATIONS.</b>								
Camden Square.....	31	62	29	56	34	6	0	0
Dungeon Ghyll .....	10	29	26	47	45	44	15	2
Inveraray .....	22	31	28	50	47	32	8	0
Woodlawn .....	8	35	43	81	37	14	0	0
<b>GROUPS.</b>								
England, I.—IV....	32	51	39	57	29	9	1	0
England and Wales	24	46	39	57	34	15	3	0
Wales & Lake Dist.	15	34	33	57	46	26	7	0
Scotland.....	19	42	38	58	39	18	4	0
Ireland .....	16	42	43	67	35	13	2	0
British Isles .....	20	44	40	60	36	15	3	0

We conclude with a comparison of the larger divisions and some extreme stations, reduced to the mean number of rain days for the whole country, 218 on this occasion. One of the most interesting features is the remarkable preponderance of rain days with between  $\cdot 02$  in. and  $\cdot 04$  in., or between  $\cdot 10$  in. and  $\cdot 24$  in., in all parts of the country, but particularly in the drier parts of England (Div. I.-IV.), and the comparative infrequency of the intermediate falls between  $\cdot 05$  in. and  $\cdot 09$  in. The most striking example is seen in the case of Camden Square, where days with less than  $\cdot 05$  in. numbered 93, and those with  $\cdot 05$  in. but less than  $\cdot 10$  in. only numbered 29, while those between  $\cdot 10$  in. and  $\cdot 24$  in. were as many as 56. In Ireland, and characteristically so at Woodlawn, the number of rain days with less than  $\cdot 05$  in. was small (only 43), the next stage equally large (also 43), and the falls between  $\cdot 10$  in. and  $\cdot 24$  in. the most numerous of all (no less than 81). It appears that these peculiarities are not altogether accidents of the year, but represent a real difference between the more continental and the more purely maritime climates of the British Isles.

*Intensity of Daily Rainfall and Number of Rain Days at 73 Stations in 1907.*

Div.	STATION.	Number of Days on which various amounts of Rain fell.										No. of Rain Days.	Total Rainfall.	Amount per Rain day.	
		in. ·01.	in. ·02-·04.	in. ·05-·09.	in. ·10-·24.	in. ·25-·49.	in. ·50-·99.	in. 1·00-1·99.	in. 2·00 or over.						
	ENGLAND & WALES.														
I.	St. Pancras, Camden Square....	25	50	23	45	27	5	0	0	0	175	23·01	in.	in.	·13
II.	Hythe, Hillcrest Road .....	15	40	34	38	35	6	0	0	0	168	24·45			·15
"	Brighton, Old Steyne.....	29	31	31	52	19	4	0	0	0	166	20·52			·12
"	Bournemouth, Kempsey .....	29	40	30	33	31	11	3	0	0	177	30·09			·17
III.	Basingstoke, Sherborne St. John .....	28	48	28	52	25	16	1	0	0	198	31·75			·16
"	Oxford, Magdalen College .....	24	40	37	33	24	8	2	0	0	168	25·50			·15
IV.	Blisworth, Crieff House... ..	24	41	37	52	20	8	1	0	0	183	25·11			·14
"	Colchester, Lexden.....	21	35	31	54	15	5	1	0	0	162	21·54			·13
"	Saffron Walden .....	24	55	30	57	21	5	1	0	0	193	23·88			·12
"	Gedeston [Beccles].....	48	47	34	57	21	4	0	0	0	211	22·51			·11
"	Swaffham .....	19	37	40	41	30	5	0	0	0	172	23·82			·14
V.	Bishops Cannings .....	15	30	32	53	26	12	2	0	0	170	30·64			·18
"	Torquay, Cary Green.....	23	52	32	48	29	13	2	0	0	199	33·22			·17
"	Barnstaple, N. Devon Athenæum .....	5	52	49	61	44	9	2	0	0	222	35·66			·16
"	St. Austell, Trevarna.....	15	50	38	60	39	20	1	0	0	223	42·01			·19
"	Crewkerne, Merefield House ...	23	49	40	42	33	16	2	0	0	205	35·11			·17
VI.	Ross, The Graig .....	40	52	38	49	18	10	5	0	0	212	30·95			·15
"	Shifnal, Neachley .....	30	58	32	64	30	8	2	0	0	224	31·34			·14
VII.	Market Overton .....	24	32	44	48	24	13	3	0	0	188	30·63			·16
"	Louth, Westgate.....	5	59	38	56	20	7	1	0	0	186	25·83			·14
"	Workshop, Hodsock Priory .....	34	50	47	38	23	4	0	1	0	197	23·66			·12
"	Chellaston.....	24	52	34	52	22	10	0	0	0	194	26·36			·14
VIII.	Wilmslow, Parksde .....	32	48	38	60	30	9	0	0	0	217	29·76			·14
"	St. Michael's-on-Wyre Vicarage .....	30	34	34	73	37	16	3	0	0	227	42·35			·19
IX	Harrogate, Harlow Moor.....	23	55	49	54	25	12	3	0	0	221	34·45			·16
"	Sedburgh, Akay .....	8	25	28	70	49	27	11	0	0	218	61·78			·28
"	Lowthorpe, The Elms .....	12	45	46	46	20	9	1	0	0	179	25·26			·14
X.	Darlington, Hurworth Grange....	24	55	32	41	33	7	0	0	0	192	25·86			·13

RAIN DAYS.

[ III ]

*Intensity of Daily Rainfall and Number of Rain Days at 73 Stations in 1907—(continued).*

Div.	STATION.	Number of Days on which various amounts of Rain fell.								No. of Rain Days.	Total Rainfall.	Amount per Rain Day.
		in. ·01.	in. ·02-·04.	in. ·05-·09.	in. ·10-·24.	in. ·25-·49.	in. ·50-·99.	in. 1·00-1·99.	in. 2·00 or over.			
X.	ENGLAND & WALES—(con.)											
	Morpeth, Bothalhaugh .....	43	46	43	41	17	13	1	0	204	in. 26·72	in. ·13
"	Brampton, Denton House .....	18	40	44	53	36	10	1	0	202	33·01	·16
"	Dungeon Ghyll .....	12	37	33	59	57	55	19	3	275	105·67	·38
XI.	Treherbert, Tynywaun .....	12	35	33	46	51	47	17	0	241	84·02	·35
"	Llanwrda, Dolaucothy .....	11	29	39	74	63	31	1	0	248	57·26	·23
"	Haverfordwest, High Street .....	22	35	32	59	48	18	2	0	216	44·17	·20
"	New Radnor, Ednol .....	14	34	37	59	45	15	6	0	210	46·28	·22
"	Lake Vyrnwy .....	9	28	36	59	50	31	5	0	218	57·04	·26
"	Denbigh, Garn .....	28	42	38	61	31	7	1	0	208	29·37	·14
"	Bethesda, St. Ann's Vicarage ..	19	43	32	65	43	22	6	0	230	51·59	·22
SCOTLAND.												
XII.	Whithorn, Cutroach .....	5	42	39	56	39	21	4	0	206	45·76	·22
"	Lincluden House [Dumfries] .....	12	47	40	66	42	20	3	0	230	46·77	·20
"	Hawick, Branxholme .....	9	45	43	58	40	11	1	0	207	35·05	·17
XIII.	Edinburgh, Royal Observatory ..	28	47	33	42	20	11	2	1	184	30·18	·16
XIV.	Girvan, Pinmore .....	16	57	41	65	63	23	4	1	270	57·67	·21
XV.	Buchlyvie, The Manse .....	38	39	33	73	56	30	1	0	270	57·53	·21
"	Inveraray, Newtown .....	28	39	36	63	59	40	11	0	276	74·85	·27
"	Strontian, Laudale .....	1	32	32	90	53	42	9	0	259	76·65	·30
"	Islay, Eallabus .....	7	44	56	68	60	18	5	0	258	55·80	·22
XVI.	Blair Atholl .....	18	44	42	68	26	13	0	0	211	32·60	·15
"	Dundee, Eastern Necropolis .....	29	52	42	45	25	10	3	0	206	31·99	·16
XVII.	Aberdeen, Cranford .....	14	61	46	52	25	10	3	0	211	32·87	·16
"	Strathdon, School House .....	34	67	37	49	33	13	4	0	237	37·69	·16
"	Keith .....	33	40	31	67	23	11	2	1	208	34·13	·16
XVIII.	Fort Augustus, St. Benedicts ..	9	44	42	74	45	11	3	0	228	41·96	·18
"	Loch Torridon, Bendamph .....	3	21	28	67	93	33	17	0	262	90·92	·35

*Intensity of Daily Rainfall and Number of Rain Days at 73 Stations in 1907—(continued).*

RAIN DAYS.

[ 113 ]

Div.	STATION.	Number of Days on which various amounts of Rain fell.										No. of Rain Days.	Total Rainfall.	Amount per Rain Day.
		in. ·01.	in. ·02-·04.	in. ·05-·09.	in. ·10-·24.	in. ·25-·49.	in. ·50-·99.	in. 1·00-1·99.	in. 2·00 or over.					
XVIII.	SCOTLAND—(con.)													
XIX.	Alness, Ardross Castle .....	37	46	53	50	30	19	2	0	237	in. 38·76	in. ·16		
”	Altnaharra.....	2	28	32	66	40	14	0	0	182	34·66	·19		
	Castletown, The Clett.....	50	59	53	68	24	10	0	0	264	31·20	·12		
XX.	IRELAND.													
”	Cork, The Palace .....	19	56	36	56	27	15	5	0	214	38·51	·18		
	Darrynane Abbey .....	29	44	40	70	56	22	2	0	263	52·43	·20		
	Clonmel, Bruce Villa.....	13	61	41	52	36	12	1	0	216	34·66	·16		
	Limerick, Roxborough.....	2	49	52	82	38	11	0	0	234	37·61	·16		
XXI.	Miltown Malbay .....	33	42	53	74	44	23	3	0	272	47·67	·18		
”	Enniscorthy, Ballyhyland.....	35	43	28	63	44	16	1	0	230	40·32	·18		
	Bray, Fassaroe.....	14	42	43	57	33	15	3	0	207	37·84	·18		
”	Abbey Leix, Blandsfort.....	26	40	49	77	41	7	2	0	242	38·03	·16		
	Moynalty, Westland .....	15	47	55	77	33	13	0	0	240	37·70	·16		
XXII.	Woodlawn .....	9	40	50	93	42	16	0	0	250	43·72	·17		
”	Westport, St. Helen's.....	16	56	50	88	40	17	3	0	270	47·64	·18		
	Collooney, Markree Observatory	19	36	51	99	39	14	1	0	259	45·18	·17		
XXIII.	Monaghan, Rowantree House...	19	46	62	67	30	4	0	0	228	28·17	·12		
”	Banbridge, Milltown .....	12	59	48	74	25	10	0	0	228	31·61	·14		
	Bushmills, Dundarave.....	10	36	47	85	35	16	2	0	231	43·06	·19		
”	Convoy.....	11	38	46	74	63	19	2	0	253	51·96	·21		
	ENGLAND & WALES (Mean).....	22	43	36	53	32	14	3	0	203	36·11	·18		
	SCOTLAND ( ” ).....	20	45	40	62	42	19	4	0	232	46·69	·20		
	IRELAND ( ” ).....	18	46	47	74	39	14	2	0	240	41·01	·17		
	BRITISH ISLES ( ” ).....	20	44	40	60	36	15	3	0	218	39·94	·18		

**II.—Droughts in 1907.**

Following the established custom we recognise two kinds of dry spell, the first a fairly long period absolutely without rain, the second a much longer period with very little rain.

- I. The ABSOLUTE DROUGHT or period of *more than* 14 consecutive days no one of which is a rain day.
- II. The PARTIAL DROUGHT or period of *more than* 28 consecutive days the mean rainfall of which does not exceed .01 per day.

As it is impossible to study every record in equal detail it has been the practice since 1903 to consider the droughts at the 73 stations enumerated in the foregoing table, and the figures for the five years now available are as follows :—

*Comparison of Droughts at 73 Stations.*

	ABSOLUTE DROUGHTS.				PARTIAL DROUGHTS.			
	No. of Droughts at 73 Stations	Duration.		Stations without one.	No. of Droughts at 73 Stations	Duration.		Stations without one.
		Mean.	Greatest.			Mean.	Greatest.	
		days.	days.			days.	days.	
1903	16	19	25	57	24	34	41	51
1904	9	16	18	64	13	34	41	60
1905	19	17	20	54	43	36	48	44
1906	53	17	25	34	29	36	55	45
1907	41	19	25	37	22	32	41	52

The number of absolute droughts in 1907 was 41 as compared with 53 in the previous year and not more than 19 in any of the three years before that time. Absolute droughts were reported from 36 stations, five of which experienced two, and 37 stations reported none. From 1888 to 1902 droughts were studied from 50 stations, and in order to preserve continuity of comparison the figures for the last five years are calculated to the equivalent for 50 stations and quoted in the Comparative Summary. It is seen that the number reduced to 50 is 28, or 1 less than the average ; 9 of the 20 years quoted had a larger number of droughts and 10 a smaller, so that the conditions in this respect seem to have been fairly normal.

Only 22 of the 73 stations could report a partial drought, and of these one had to record 2, while 52 stations did not experience any

such prolonged dry period. The Summary shows that this is equivalent to 15 partial droughts for 50 stations, or 10 less than the average, and a smaller number was reported only in 7 out of the 20 years. The mean duration of the partial droughts was 5 days less than the average, while that of the absolute droughts was 1 day more.

Details of the duration of absolute and partial droughts at each of the stations reporting them are given in the following table. Absolute droughts occurred on four occasions only, three of them local and unimportant, but the fourth, that of September, exceptionally widespread and intense, and it alone requires special notice. Of the 22 partial droughts 18 included the period of the September absolute drought, and the other four occurred in January. The small map on which the positions of the 73 special stations are shown indicates that droughts occurred in almost all parts of England and Wales, while the greater part of Scotland and Ireland was without them.

In order to ascertain the extent of the one great drought of the year, that of September, a special map was prepared on which the number of consecutive days without recorded rain was entered for every station from which a good return of daily rainfall was received. This was done first in October, 1907, with the few hundred returns coming in monthly and a reduction of the resulting map was published in the *Met. Mag.* for that month. The map was subsequently filled up by inserting the number of days without rain from about 2,000 stations and in its final form it is probably the most detailed piece of work of the kind yet attempted. Guided by the figures on the map a line was drawn enclosing the area within which there had been 15 or more days without recorded rain, and within that a line enclosing all places reporting 20 or more consecutive days without rain. These lines are reproduced on the accompanying map which is, of course, greatly reduced. The dry period was shortest in Ireland, where the absolute drought prevailed in a narrow strip along the south and east coasts, and a small portion of this in the south-west had more than 20 days without rain. In Scotland the drought was scarcely felt at all, the small area shown in the north depending on the record of two stations only, one of which has a total number of rain days for the year so small as to suggest the possibility of the gauge being occasionally left unvisited in dry weather so that a day with a small amount might not have been noticed. But the drought spread over all England and Wales except for a strip in the north-west where





Midlands. In the last named district from North Wales and Birmingham to Plymouth and the Isle of Wight there were 16,000 square miles at least on which no rain fell for from 20 to 25 days. The first day without rain was September 6th or 7th in the east and September 7th or 8th in the west, and the last day without rain varied from September 24th to October 1st, so that it may be said generally that the greater part of Wales and a large part of England had no rain during the last three weeks of September.

The meteorological conditions which prevailed during that time were anticyclonic, a large area of high pressure resting over the British Isles and producing weather of the pleasantest kind possible at the season, bringing, as was natural, frequent light fogs, the condensation from which, rather than rain in the ordinary sense, was probably the cause of an absolute drought not being recorded at many stations. A prolonged drought has rarely been so welcome, as it came at the season when the farmer required dry weather for harvest, and after months of frequent if not excessive rainfall had reduced the risk of a deficient water supply.

*Droughts in 1907.*

STATION & COUNTY.	ABSOLUTE DROUGHTS.			PARTIAL DROUGHTS.			
	Began.	Ended.	Lasted.	Began.	Ended.	Lasted.	Amount.
			Days			Days	in.
<b>ENGLAND &amp; WALES.</b>							
St. Pancras (Camden Square) ... <i>London, North.</i>	Sep. 7	Sep. 24	18	None			
Hythe (Hillcrest Road) ..... <i>Kent, East.</i>	Sep. 7	Sep. 29	23	None			
Brighton (Old Steyne)..... <i>Sussex, East.</i>	Sep. 7	Sep. 24	18	Jan. 3	Feb. 7	36	·36
Bournemouth (Kempsey) ..... <i>Hampshire.</i>	Sep. 7	Sep. 27	21	None			
Basingstoke (Sherborne St. John) <i>Hampshire.</i>	Mar. 18 Sep. 7	Apr. 1 Sep. 24	15 18	Jan. 3	Feb. 9	38	·38
Oxford (Magdalen College) ..... <i>Oxfordshire.</i>	Jan. 11 Sep. 6	Jan. 26 Sep. 24	16 19	Jan. 2 Sep. 5	Feb. 7 Oct. 4	37 30	·26 ·28

*Droughts in 1907—(continued).*

STATION & COUNTY.	ABSOLUTE DROUGHTS.			PARTIAL DROUGHTS.			
	Began.	Ended.	Last- ed.	Began.	Ended.	Last- ed.	Amount.
			Days			Days	in.
<b>ENGLAND &amp; WALES—(con.)</b>							
Blisworth (Crieff House)..... <i>Northamptonshire.</i>	Sep. 8	Sep. 24	17	None			
Colchester (Lexden)..... <i>Essex.</i>	Sep. 7	Sep. 24	18	None			
Saffron Walden..... <i>Essex.</i>	Sep. 7	Sep. 23	17	Sep. 5	Oct. 4	30	·27
Geldeston [Beccles]..... <i>Norfolk.</i>	Sep. 7	Sep. 29	23	Aug. 21	Sep. 30	41	·35
Swaffham ..... <i>Norfolk.</i>	Sep. 8	Sep. 24	17	None			
Bishops Cannings..... <i>Wiltshire.</i>	Sep. 6	Sep. 28	23	Jan. 11	Feb. 9	30	·29
Torquay (Cary Green)..... <i>Devon, South.</i>	Mar. 18	Apr. 2	16	None			
Crewkerne (Merefield House) ... <i>Somerset, South.</i>	Jan. 3 Sep. 7	Jan. 17 Sep. 29	15 23	None			
Ross (The Graig) ..... <i>Herefordshire.</i>	Sep. 8	Sep. 29	22	None			
Shifnal (Neachley) ..... <i>Shropshire.</i>	None			Sep. 5	Oct. 5	31	·23
Market Overton ..... <i>Rutland.</i>	Sep. 8	Sep. 24	17	None			
Louth, Westgate..... <i>Lincolnshire.</i>	Sep. 5	Sep. 24	20	Sep. 5	Oct. 5	31	·27
Worksop (Hodsock Priory) ..... <i>Nottinghamshire.</i>	Sep. 8	Sep. 25	18	None			
Chellaston ..... <i>Derbyshire.</i>	Sep. 8	Sep. 25	18	Sep. 5	Oct. 4	30	·27
Wilmslow (Parksyde) ..... <i>Cheshire.</i>	None			Sep. 3	Oct. 4	32	·30
St. Michael's-on-Wyre Vicarage. <i>Lancashire, North.</i>	None			Sep. 5	Oct. 4	30	·22

*Droughts in 1907—(continued).*

STATION & COUNTY.	ABSOLUTE DROUGHTS.			PARTIAL DROUGHTS.			
	Began.	Ended.	Lasted. Days	Began.	Ended.	Lasted. Days	Amount. in.
<b>ENGLAND &amp; WALES—(con.)</b>							
Harrogate (Harlow Moor) ..... <i>Yorkshire, W.R. (N.)</i>	Sep. 6	Sep. 25	20	Sep. 5	Oct. 8	34	·30
Sedbergh (Akay)..... <i>Yorkshire, W.R. (N.)</i>	Sep. 16	Sep. 30	15	Sep. 5	Oct. 4	30	·27
Lowthorpe (The Elms) ..... <i>Yorkshire, E.R.</i>	Sep. 6	Sep. 25	20	Sep. 5	Oct. 4	30	·21
Darlington (Hurworth Grange)... <i>Durham.</i>	Jan. 2 Sep. 6	Jan. 21 Sep. 28	20 23	Sep. 3	Oct. 4	32	·23
Morpeth (Bothalhaugh) ..... <i>Northumberland.</i>	Sep. 6	Sep. 25	20	Sep. 5	Oct. 5	31	·22
Brampton (Denton House)..... <i>Cumberland.</i>	Sep. 14	Oct. 1	18	Aug. 30	Oct. 4	36	·35
Treherbert (Tynywaun) ..... <i>Glamorganshire.</i>	Sep. 8	Sep. 29	22	None			
Llanwrda (Dolaucothy) ..... <i>Carmarthenshire.</i>	Sep. 8	Sep. 30	23	None			
Haverfordwest (High Street) ... <i>Pembrokeshire.</i>	Sep. 7	Sep. 30	24	None			
New Radnor (Ednol) ..... <i>Radnorshire.</i>	Sep. 8	Oct. 1	24	None			
Lake Vyrnwy ..... <i>Montgomeryshire.</i>	Sep. 8	Sep. 30	23	None			
Denbigh (Garn) ..... <i>Denbighshire.</i>	Sep. 6	Sep. 30	25	Sep. 4	Oct. 5	32	·26
<b>SCOTLAND.</b>							
Lincluden House [Dumfries]..... <i>Kirkcudbright.</i>	Sep. 12	Sep. 29	18	None			
Hawick (Bransholme)..... <i>Roxburgh.</i>	None			Sep. 5	Oct. 5	31	·27
Edinburgh (Royal Observatory)... <i>Midlothian.</i>	None			Sep. 6	Oct. 5	30	·28
Dundee (Eastern Necropolis)..... <i>Forfarshire.</i>	None			Sep. 5	Oct. 3	29	·28

*Droughts in 1907—(continued).*

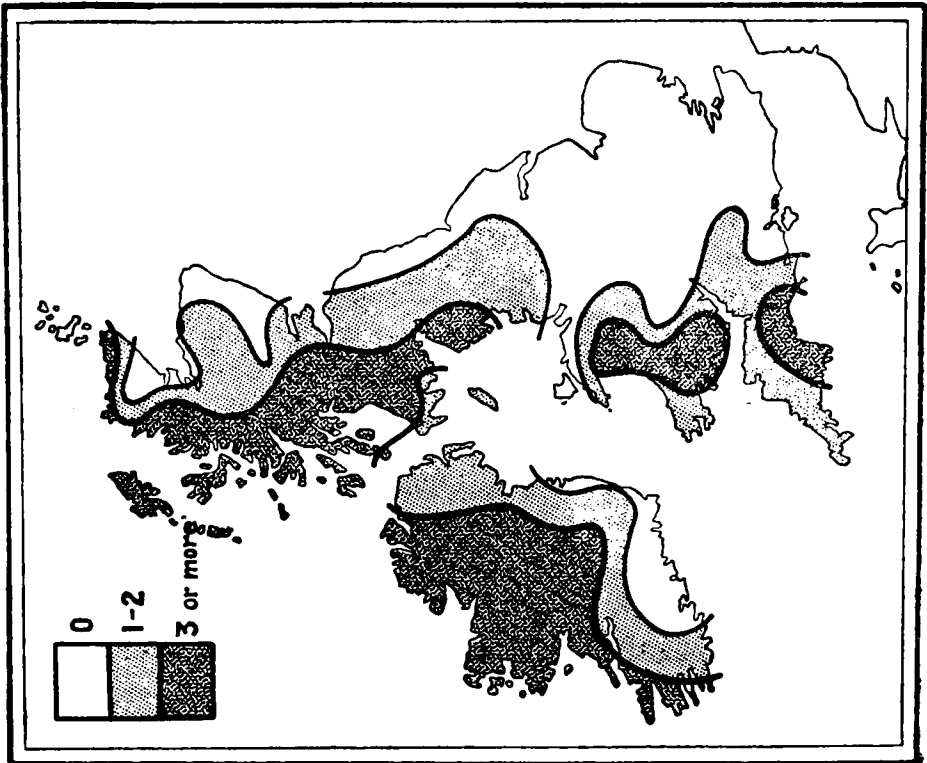
STATION & COUNTY.	ABSOLUTE DROUGHTS.			PARTIAL DROUGHTS.			
	Began.	Ended.	Lasted.	Began.	Ended.	Lasted.	Amount.
<b>SCOTLAND—(con.)</b>			Days			Days	in.
Fort Augustus (St. Benedict's) ... <i>East Inverness.</i>	Sep. 16	Oct. 3	18	None			
Altnaharra..... <i>Sutherland.</i>	July 10	July 26	17	None			
<b>IRELAND..</b>							
Cork (The Palace) ..... <i>Cork.</i>	July 9 Sep. 8	July 23 Sep. 24	15 17	None			
Bushmills (Dundarave) ..... <i>Antrim.</i>	Sep. 17	Oct. 1	15	None			

*Comparative Summary of Droughts.*

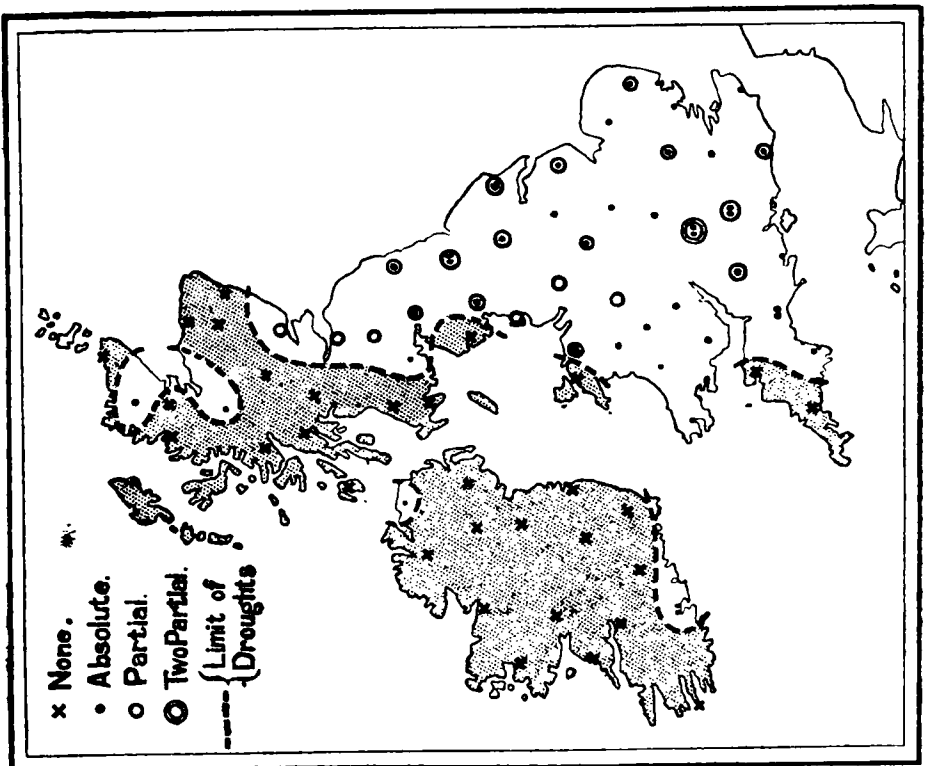
	ABSOLUTE DROUGHTS.				PARTIAL DROUGHTS.			
	No. of Droughts at 50 Stations	Duration.		Stations without one.	No. of Droughts at 50 Stations	Duration.		Stations without one.
		Mean.	Greatest.			Mean.	Greatest.	
		days.	days.			days.	days.	
1888	17	17	20	35	4	42	50	46
1889	42	21	30	13	38	34	45	15
1890	13	18	20	39	3	30	31	47
1891	26	18	34	28	38	36	49	14
1892	36	16	20	25	17	35	64	33
1893	39	20	44	23	53	51	114	10
1894	52	18	31	10	44	37	62	13
1895	52	19	29	16	47	39	64	19
1896	27	18	26	25	49	40	75	16
1897	20	18	20	31	7	40	61	44
1898	31	17	28	27	31	38	77	26
1899	60	21	31	10	41	35	48	20
1900	14	17	21	38	9	32	35	41
1901	56	17	20	10	9	37	56	42
1902	5	17	18	45	2	37	41	48
1903*	11	19	25	39	16	34	41	35
1904*	6	16	18	44	9	34	41	42
1905*	13	17	20	37	29	36	48	30
1906*	36	17	25	23	20	36	55	31
Mean	29	18	25	27	25	37	56	30
1907*	28	19	25	26	15	32	41	36
Diff.	—1	+1	0	—1	—10	—5	—15	+6

\* Reduced to value of 50 stations for comparison.

## RAIN SPELLS IN 1907.



## DROUGHTS IN 1907.



### III.—Rain Spells.

A RAIN SPELL is the opposite of an absolute drought, at least in its definition, which runs—

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

The systematic study of rain spells was commenced in 1903, a year of such exceptionally heavy and continuous rainfall that it was difficult to devise a definition which, while not involving an unmanageable number of entries at the time, should yet provide a reasonable number in a normal year. The result of five years' experience shows that so far at least the limits adopted have proved serviceable, though the number of cases they provide usually exceeds that of droughts.

*Comparative Table of Rain Spells at 73 Stations.*

Year.	No. of Rain Spells.	DURATION OF SPELLS.				STATIONS WITH			
		Mean.		Greatest.		None.	1 or 2.	3 or 4.	5 or more.
		days.	Mean R per day, in.	days.	Mean R per day, in.				
1903...	203	22	·28	52	·51	8	30	19	16
1904...	111	19	·22	34	·27	23	37	8	5
1905...	88	19	·24	44	·38	33	28	9	3
1906...	91	21	·25	50	·40	28	34	8	3
1907...	129	21	·25	45	·17	28	22	13	10

In 1907 the total number of rain spells recorded at the 73 stations was greater than in any year since 1903 ; but the mean duration and intensity were the same as in 1906, and the longest rain spell had a smaller intensity than in the other years. The number of stations reporting 1 or 2 rain spells was less than in any of the other four years, but the number experiencing 3 or more was only exceeded in 1903.

The distribution of the stations recording rain spells is shown in the accompanying sketch-map, and as usual it is on the whole complementary to the distribution of stations reporting droughts; the area where there were no droughts had most rain spells, but Wales is an exception to that rule on this occasion. It will be noticed also on comparing the map of the number of rain days, that roughly speaking the line of 200 rain days separates the region of rain spells on the west from that of no rain spells on the east. The frequency

of rain spells increases in fact with the number of rain days and the amount of rain. Four of the rain spells reported exceeded 40 days in length, and 9 others lasted for between 30 and 40 days.

The rain spells reported corresponded to 11 distinct rain periods, commencing respectively in the months of January, February, March, April, May, June, August (2 separate occasions), October, November and December. They were thus very uniformly distributed throughout the year. Only five of the wet periods affected an area large enough to be reported by more than 10 of the selected stations. The most widespread of these was probably that which included the greater part of October, and was reported at 24 stations in the west of England, Wales, the south of Scotland, and the west of Ireland, thus immediately following the great drought of September, and being most prolonged over approximately the same area as that over which the drought had lasted 20 days or more. This spell began in general about the 5th, and lasted about 22 days. The extremely unsettled state of the weather in October, with a constant succession of depressions coming in from the Atlantic, accounted for the large number of consecutive rain days, as well as for the very heavy rains which occurred in the midst of the rain spell on the 15th and 16th.

The rain spell of August affected a nearly equal area, though only reported at 20 stations—mainly in Wales, Ireland, and the north and west of Scotland. At Girvan, Bendamph, and Castletown the rain spell lasted for from 42 to 45 days from July 25th or 26th to September 5th, 6th, or 7th, and at Buchlyvie and Strontian there was a break of a day or two between two separate rain spells which, but for that, would have had as great a duration. At most stations the August rain spell lasted for 21 days from about the 2nd to the 22nd.

Two other rain spells were reported each at 18 stations, one of these in June and July, averaging 24 days; the other in December, beginning about the 1st and lasting about 22 days. They both affected an area very similar to that which experienced the rain spell of August, the run of wet weather being simultaneous in Wales, Scotland, and Ireland on all three occasions, and the same remark has to be made regarding the scarcely less extensive rain spell of April and May, which was reported at 15 stations and had a duration of about 18 days.

Until the records of a good many more years have been collected,

it will scarcely be worth while to discuss the data in more detail, for as yet we do not know how great the fluctuations from year to year may be, and when we are looking for real relationships, the search for which involves a great expenditure of time, we like to have data before us to furnish a fair field. At the present stage we can only point out facts as they appear, in the hope that they will suggest ideas for future investigation. One such idea is conveyed in the simultaneous occurrence of rain spells time after time in distant places, while none appears in the intervening districts.

The mere length of a rain spell means very little, for it might consist of a string of days on each of which only a slight shower fell; but when the cases in which the average rainfall per day exceeds  $\cdot 40$  in. are brought together, as in the following Table, we get some interesting information, though in 1907 there is nothing so remarkable as the 15·81 in. in 20 days at Bendamph in 1906 yielding a mean of  $\cdot 79$  in. per day. The high mean falls are found mainly at Dungeon Ghyll which takes the place of Seathwaite as a representative of the Lake District; in Scotland there do not appear to have been so many consecutive days of heavy rain as in the years previously dealt with.

*Rain Spells of a Mean Rate of  $\cdot 40$  in. or more per day in 1907.*

Div.	Station.	Began.	Ended.	Lasted.	Total Fall.	Rain per Day.		
						Max.	Min.	Mean.
				days.	in.	in.	in.	in.
X.	Dungeon Ghyll ...	Feb. 7	Feb. 21	15	10·09	3·75	·01	·67
"	" " ...	Mar. 4	Mar. 24	21	13·31	3·64	·01	·63
"	" " ...	May 29	July 9	42	16·78	2·05	·02	·40
"	" " ...	Sept. 30	Oct. 27	28	12·00	1·80	·01	·43
"	" " ...	Nov. 22	Dec. 24	33	17·44	1·85	·01	·53
XI.	Tyn-y-waun .....	Aug. 2	Aug. 19	18	8·66	1·47	·01	·48
"	" " .....	Dec. 6	Dec. 22	17	9·06	1·64	·02	·53
XV.	Strontian .....	Nov. 8	Nov. 22	15	7·08	1·37	·03	·47
XVIII.	Bendamph .....	Nov. 9	Nov. 24	16	7·93	1·80	·05	·50



Table of Rain Spells, 1907.

STATION & COUNTY.	Began.	Ended.	Lasted.	Total Rain.	RAIN PER DAY.		
					Max.	Min.	Mean
ENGLAND & WALES.			Days	in.	in.	in.	in.
Basingstoke (Sherborne S. John) <i>Hampshire.</i>	Oct. 5	Nov. 1	28	5·77	·93	·01	·21
Torquay (Cary Green)..... <i>Devon, South.</i>	Apr. 28	May 14	17	2·42	·51	·01	·14
	Oct. 5	Oct. 25	21	5·02	1·91	·01	·24
	Dec. 1	Dec. 16	16	3·42	·65	·02	·21
Barnstaple (N Devon Athenæum) <i>Devon, North.</i>	Aug. 2	Aug. 19	18	3·12	1·17	·02	·17
St. Austell (Trevarna)..... <i>Cornwall.</i>	Oct. 5	Oct. 30	26	7·11	·83	·01	·27
	Dec. 1	Dec. 25	25	5·46	·71	·02	·22
Crewkerne (Merefield House)... <i>Somerset, South.</i>	June 21	July 5	15	1·13	·33	·01	·08
	Oct. 8	Oct. 25	18	6·30	1·02	·02	·35
	Dec. 1	Dec. 25	25	5·26	·95	·01	·21
Shifnal (Neachley) ..... <i>Shropshire.</i>	Oct. 9	Oct. 27	19	3·48	·72	·01	·18
St. Michael's-on-Wyre Vicarage <i>Lancashire, North.</i>	May 23	June 15	24	6·77	1·55	·01	·28
	Nov. 14	Nov. 28	15	2·85	·53	·01	·19
Harrogate (Harlow Moor) ..... <i>Yorkshire, W.R. (N.)</i>	Oct. 9	Oct. 23	15	4·34	1·70	·05	·29
Sedbergh (Akay) ..... <i>Yorkshire, W.R. (N.)</i>	Aug. 1	Aug. 20	20	5·08	·88	·01	·25
	Oct. 9	Oct. 26	18	4·35	1·06	·01	·24
Brampton (Denton House) ..... <i>Cumberland.</i>	May 29	June 15	18	3·44	·69	·01	·19
	Oct. 4	Oct. 27	24	4·49	1·43	·01	·19
Dungeon Ghyll ..... <i>Westmorland.</i>	Feb. 7	Feb. 21	15	10·09	3·75	·01	·67
	Mar. 4	Mar. 24	21	13·31	3·64	·01	·63
	Apr. 26	May 14	19	7·34	1·00	·02	·39
	May 29	July 9	42	16·78	2·05	·02	·40
	Sep. 30	Oct. 27	28	12·00	1·80	·01	·43
	Nov. 22	Dec. 24	33	17·44	1·85	·01	·53
Treherbert (Tynywaun) ..... <i>Glamorganshire.</i>	Apr. 25	May 11	17	4·31	·95	·01	·25
	June 17	July 6	20	6·32	·75	·02	·32
	Aug. 2	Aug. 19	18	8·66	1·47	·01	·48
	Oct. 4	Nov. 4	32	9·71	1·06	·01	·30
	Dec. 6	Dec. 22	17	9·06	1·64	·02	·53
Llanwrda (Dolaucothy) ..... <i>Carmarthenshire.</i>	Jan. 1	Jan. 16	16	2·34	·90	·01	·15
	Feb. 8	Feb. 22	15	3·45	·53	·03	·23
	Aug. 2	Aug. 19	18	4·35	·80	·02	·24
	Oct. 8	Nov. 4	28	7·90	·90	·01	·28
	Dec. 1	Dec. 22	22	5·86	·80	·02	·27
Haverfordwest (High Street)... <i>Pembrokeshire.</i>	Oct. 1	Nov. 4	35	9·28	·89	·01	·27

Table of Rain Spells, 1907—(continued).

STATION & COUNTY.	Began.	Ended.	Lasted.	Total Rain.	RAIN PER DAY.		
					Max.	Min.	Mean
ENGLAND & WALES—(con.)			Days	in.	in.	in.	in.
Lake Vyrnwy ..... <i>Montgomeryshire.</i>	Aug. 2	Aug. 19	18	5·18	1·00	·01	·29
	Oct. 8	Oct. 22	15	5·06	1·15	·04	·34
	Dec. 3	Dec. 22	20	7·77	1·63	·02	·39
Denbigh (Garn)..... <i>Denbighshire.</i>	Oct. 9	Oct. 23	15	4·83	1·39	·01	·32
SCOTLAND.							
Whithorn (Cutroach) ..... <i>Wigtownshire.</i>	Apr. 26	May 12	17	2·02	·30	·02	·12
Lincluden House [Dumfries] ... <i>Kirkcudbright.</i>	Apr. 27	May 12	16	3·30	·64	·02	·21
	June 17	July 1	15	2·50	·80	·02	·17
	Oct. 4	Oct. 26	23	7·07	·90	·01	·31
Hawick (Branxholme)..... <i>Roxburghshire.</i>	Oct. 8	Oct. 27	20	4·20	·63	·02	·21
Edinburgh (Royal Observatory) <i>Midlothian.</i>	Oct. 4	Oct. 23	20	7·29	3·12	·01	·36
Girvan (Pinmore)..... <i>Ayrshire.</i>	Apr. 26	May 13	18	3·40	·47	·01	·19
	May 29	June 28	31	8·07	1·41	·02	·26
	July 25	Sep. 7	45	7·46	·64	·01	·17
	Sep. 30	Oct. 25	26	8·52	2·10	·01	·33
	Nov. 7	Nov. 28	22	6·23	1·18	·01	·28
	Nov. 30	Dec. 22	23	5·48	·68	·02	·24
Buchlyvie (The Manse) ..... <i>Stirlingshire.</i>	June 7	July 14	38	5·93	·50	·01	·16
	Aug. 2	Aug. 19	18	4·85	·80	·01	·27
	Aug. 24	Sep. 7	15	3·17	·89	·01	·21
	Sep. 30	Oct. 25	26	6·62	1·99	·01	·25
Inveraray (Newtown) ..... <i>Argyll, Mainland.</i>	Mar. 1	Mar. 27	27	7·79	1·13	·01	·29
	May 29	June 29	32	7·33	1·15	·01	·23
	Aug. 2	Aug. 22	21	6·63	1·04	·02	·32
	Dec. 1	Dec. 23	23	8·68	1·00	·01	·38
Strontian (Laudale)..... <i>Argyll, Mainland.</i>	Jan. 1	Jan. 16	16	5·28	·75	·03	·33
	Mar. 3	Mar. 19	17	5·56	·95	·03	·33
	Apr. 20	May 10	21	6·85	·95	·02	·33
	Aug. 2	Aug. 22	21	6·55	·87	·02	·31
	Aug. 24	Sep. 7	15	5·34	1·70	·02	·36
	Nov. 8	Nov. 22	15	7·08	1·37	·03	·47
	Nov. 30	Dec. 24	25	8·43	1·25	·02	·34
Islay (Eallabus)..... <i>Argyll, Insular.</i>	Apr. 26	May 10	15	3·00	·76	·02	·20
	Aug. 2	Aug. 22	21	4·85	·68	·03	·23
	Dec. 1	Dec. 25	25	6·07	·96	·01	·24
Dundee (Eastern Necropolis)... <i>Forfarshire.</i>	June 21	July 14	24	3·27	·79	·01	·14

Table of Rain Spells, 1907—(continued).

STATION & COUNTY.	Began.	Ended.	Lasted.	Total Rain.	RAIN PER DAY		
					Max.	Min.	Mean
SCOTLAND—(con.)			Days	in.	in.	in.	in.
Strathdon (School House) ..... <i>Aberdeenshire.</i>	Aug. 2	Aug. 28	27	3·03	·47	·01	·11
Keith Station ..... <i>Banffshire.</i>	June 18	July 2	15	2·54	1·13	·01	·17
Fort Augustus (St. Benedict's) ..... <i>Inverness-shire, West.</i>	Aug. 2	Aug. 21	20	2·90	·53	·01	·15
Loch Torridon (Bendamph) ... <i>Ross-shire, West.</i>	Jan. 1	Jan. 18	18	4·82	·75	·04	·27
	Jan. 22	Feb. 5	15	5·19	1·10	·02	·35
	Apr. 19	May 9	21	7·55	1·75	·02	·36
	May 30	July 2	34	9·67	1·02	·02	·28
	July 26	Sep. 6	43	13·47	1·01	·07	·31
	Nov. 9	Nov. 24	16	7·93	1·80	·05	·50
Alness (Ardross Castle) ..... <i>Ross-shire, East.</i>	July 26	Aug. 20	26	3·05	·31	·01	·12
Castletown (The Clett) ..... <i>Caithness.</i>	Mar. 5	Mar. 24	20	2·46	·29	·01	·12
	July 26	Sep. 5	42	5·11	·84	·01	·12
	Dec. 17	Dec. 31	15	·81	·15	·01	·05
IRELAND.							
Darrynane Abbey ..... <i>Kerry.</i>	Mar. 3	Mar. 18	16	2·59	·57	·01	·16
	Aug. 1	Aug. 19	19	4·63	1·51	·01	·24
	Nov. 30	Dec. 28	29	9·01	1·78	·01	·31
Limerick (Roxborough) ..... <i>Limerick.</i>	June 19	July 5	17	2·28	·37	·03	·13
Miltown Malbay ..... <i>Clare.</i>	Feb. 5	Feb. 20	16	3·56	·91	·01	·22
	Apr. 22	May 6	15	1·48	·33	·01	·10
	July 31	Aug. 19	20	4·29	·58	·03	·21
	Sep. 29	Oct. 15	17	4·15	·78	·01	·24
Enniscorthy (Ballyhyland)..... <i>Wexford.</i>	Dec. 1	Dec. 21	21	4·47	·91	·01	·21
Abbey Leix, Blandsfort ..... <i>Queen's County.</i>	Apr. 24	May 12	19	3·08	·64	·01	·16
	June 19	July 9	21	2·48	·35	·03	·12
	Aug. 2	Aug. 19	18	2·31	·35	·01	·13
	Oct. 17	Nov. 4	19	3·40	·63	·01	·18
Moynalty (Westland) ..... <i>Meath.</i>	Apr. 28	May 12	15	3·12	·49	·02	·21
	May 29	June 15	18	3·04	·78	·01	·17
	June 17	July 5	19	3·67	·56	·01	·19
	July 24	Aug. 11	19	2·53	·56	·02	·13
Woodlawn ..... <i>Galway.</i>	Feb. 7	Feb. 21	15	2·44	·75	·02	·16
	Mar. 3	Mar. 22	20	2·94	·65	·01	·15
	June 19	July 3	15	3·53	·57	·02	·24
	July 31	Aug. 19	20	3·87	·68	·04	·19
	Oct. 4	Oct. 18	15	2·82	·50	·02	·19

Table of Rain Spells, 1907—(continued).

STATION & COUNTY.	Began.	Ended.	Lasted.	Total Rain.	RAIN PER DAY.		
					Max.	Min.	Mean
IRELAND—(con.)			Days	in.	in.	in.	in.
Westport (St. Helens).....	Feb. 6	Feb. 20	15	2·63	·46	·03	·18
<i>Mayo.</i>	Mar. 4	Mar. 19	16	3·82	1·24	·01	·24
	Apr. 26	May 14	19	3·70	·75	·02	·19
	May 29	June 15	18	3·19	·47	·01	·18
	Oct. 1	Oct. 15	15	3·53	1·01	·01	·24
	Dec. 1	Dec. 27	27	8·14	1·00	·02	·30
Collooney (Markree Observat'ry)	Feb. 6	Feb. 22	17	2·96	·46	·02	·17
<i>Sligo.</i>	May 29	June 15	18	3·61	·74	·03	·20
	June 17	July 9	23	4·61	·58	·04	·20
	Nov. 9	Nov. 23	15	1·56	·31	·01	·10
	Dec. 1	Dec. 15	15	3·29	·56	·03	·22
Monaghan (Rowantree House).	Feb. 7	Feb. 21	15	1·58	·25	·01	·11
<i>Monaghan.</i>	May 29	June 15	18	2·48	·44	·02	·14
	June 17	July 5	19	2·41	·34	·01	·13
Banbridge (Milltown) .....	Apr. 26	May 12	17	2·42	·41	·01	·14
<i>Down.</i>	June 19	July 7	19	3·61	·60	·02	·19
Bushmills (Dundarave) .....	Feb. 7	Feb. 21	15	2·39	·67	·01	·16
<i>Antrim.</i>	Nov. 29	Dec. 15	17	2·91	·62	·02	·17
Convoy .....	Feb. 7	Feb. 23	17	4·19	·61	·02	·25
<i>Donegal.</i>	Apr. 18	May 10	23	4·81	·61	·01	·21
	June 17	July 9	23	3·03	·38	·01	·13
	Aug. 1	Aug. 20	20	4·67	·66	·01	·23
	Oct. 1	Oct. 16	16	3·40	·86	·01	·21
	Dec. 1	Dec. 21	21	5·80	·82	·01	·28

## MONTHLY RAINFALL OF 1907.

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THE large table of monthly rainfall at 230 selected stations at the end of this section gives a much better general account of the rainfall of the country from month to month than one might suppose would be the case, seeing that only one-nineteenth of the available data is quoted in it. The reason is that the 230 stations are not only selected for known accuracy and proper exposure of the rain gauge, but they are also selected so as to be distributed uniformly over the whole country, and we could not print a larger number without losing to some extent the advantage which this gives. The most obvious advantage is that the mean of the values gives a close approximation to the general rainfall in each month. Thus, although we quote only  $5\frac{1}{4}$  per cent. of the records we receive for the British Isles, that fraction includes  $3\frac{1}{2}$  per cent. of those received from England and Wales,  $9\frac{1}{2}$  per cent. of those received from Scotland, and  $22\frac{1}{2}$  per cent. of those received from Ireland; incidentally this shows that Scotland would require three times and Ireland seven times their present number of rain gauges for their rainfall to be represented with the same completeness as that of England if all the data were used.

We should like to supplement the Table by a set of maps showing the actual monthly rainfall, and such maps are prepared by us every month and published in the *Monthly Weather Report* of the Meteorological Office; but to reproduce them on a serviceable scale would involve filling more pages than we are at present justified in adding to our volume.

Looking down the columns and taking in a general impression of the monthly rainfall for England and Wales, one is struck first by a month in which only a few of the stations had more than an inch of rain; the blank left by the absence of units before the decimal point marks it off from all the rest. This is September, with an average of  $\cdot 79$  in. for England and Wales, and it is also by far the driest month in Scotland and Ireland. The solid mass of large figures in the next column similarly calls attention to the abnormal wetness of

TABLE I.—*Monthly Rainfall in 1907: the Average, 1870–1899, being taken as 100.*

Div	Station.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Year.
I.	St. Pancras, Camden Square ..	48	72	60	191	101	97	79	83	27	88	88	178	91
II.	Tenterden .....	42	77	47	179	117	86	53	81	16	159	82	101	88
"	Arundel, Patching .....	38	65	49	256	117	125	38	49	21	129	73	122	83
"	Southampton, Cadland .....	36	54	31	215	113	95	78	61	17	193	73	130	92
III.	Basingstoke, Sherborne St. John	42	84	58	255	120	128	71	119	22	182	89	169	111
"	Hitchin, Wratten .....	54	79	63	162	171	107	71	78	31	136	89	159	99
"	Oxford, Magdalen College.....	28	63	57	117	138	142	121	54	28	186	89	188	104
IV.	Wellingborough, Croyland Abbey	58	68	61	109	263	92	91	96	20	127	94	153	102
"	Shoeburyness .....	88	87	67	143	133	135	55	76	19	114	89	128	93
"	Bury St. Edmunds, Westley....	76	99	62	185	190	98	60	95	21	97	96	145	98
"	Norwich, Brundall .....	103	119	84	191	148	154	48	52	17	131	92	122	100
V.	Evershot, Melbury House .....	38	65	37	187	105	93	38	76	18	221	106	142	98
"	Sidmouth, Sidmount .....	32	54	32	202	132	102	79	48	32	212	78	151	98
"	Norham Vicarage .....	46	59	50	250	123	122	46	73	19	119	68	134	88
"	Falmouth Observatory .....	40	67	50	230	156	165	92	57	71	140	132	99	104
"	Altarnon .....	57	59	57	183	140	159	65	92	42	129	86	107	94
"	East Harptree, Sherborne Res...	36	72	38	166	106	116	102	85	27	142	89	160	96
VI.	Stroud, Upfield .....	53	64	37	171	84	122	149	75	26	192	72	202	106
"	Leominster, Farm .....	64	44	46	106	128	117	99	84	15	273	99	110	104
"	Church Stretton, Wolstaston ..	63	73	67	137	116	168	116	102	26	177	98	131	109
"	Coventry, Kingswood .....	44	52	59	97	227	100	108	96	25	158	85	138	100
VII.	Boston .....	49	74	107	103	178	77	66	87	25	156	99	135	96
"	Lincoln, Doddington .....	51	84	99	109	163	119	69	95	33	163	97	89	99
"	Mickleover Manor .....	63	120	90	85	181	125	100	150	33	142	74	147	110
VIII.	Northwich, Highfield .....	51	97	120	72	129	174	149	111	18	112	78	79	99
"	Blackburn, Guide Reservoir....	43	70	122	89	167	248	72	106	29	88	71	120	99
IX.	Barnsley, Church Street .....	47	87	82	77	196	131	65	75	19	163	108	85	97
"	Wetherby, Ribston Hall .....	69	110	92	77	193	129	68	66	33	191	144	126	109
"	Arncliffe, Vicarage .....	55	118	144	110	161	209	63	99	21	107	77	140	104
"	Hull, Pearson Park .....	56	83	69	92	200	143	56	57	29	121	93	108	92
"	Middlesbrough, Albert Park....	27	89	53	91	197	157	50	63	17	154	92	154	96
X.	Newcastle, Town Moor .....	24	79	54	141	231	108	60	74	27	199	67	116	98
"	Borrowdale, Seathwaite .....	41	75	134	114	140	244	46	122	16	113	82	130	97
XI.	Cardiff, Ely .....	72	57	61	162	111	155	76	86	20	153	77	170	99
"	Llanwrda, Dolancothy .....	67	80	67	131	173	176	93	81	31	138	75	96	96
"	Haverfordwest, High Street.....	44	62	50	163	142	187	59	109	33	156	78	82	92
"	Aberystwyth, Gogerddan .....	86	86	87	106	155	212	104	106	27	118	94	102	104

TABLE I.—*Monthly Rainfall in 1907 : the Average, 1870–1899, being taken as 100—(continued).*

Div.	Station.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Year.
XI.	Llandudno.....	55	79	98	62	89	145	87	118	8	129	73	73	85
XII.	Auchencairn, Torr House.....	63	120	155	140	165	265	89	136	35	169	97	138	126
"	Moffat, Ericstane.....	44	84	128	114	184	168	81	133	17	174	47	85	97
XIII.	Marchmont House.....	52	57	76	87	175	149	70	84	32	174	67	119	95
XIV.	Girvan, Pinmore.....	63	82	128	174	171	229	89	136	39	157	121	105	118
"	Loch Thom.....	80	101	135	141	208	152	67	142	37	128	96	143	114
XV.	Falkirk, Kerse.....	46	145	131	73	201	188	77	120	55	174	61	152	116
"	Islay, Eallabus.....	77	133	153	152	184	146	112	161	55	96	110	109	117
"	Mul, Quinish.....	78	100	120	126	129	98	65	165	33	62	104	108	96
XVI.	Balquhider, Stronvar.....	46	114	106	111	125	155	49	137	31	76	66	107	89
"	Dundee, Eastern Necropolis....	45	48	94	95	223	195	76	123	45	192	51	130	108
XVII.	Braemar.....	55	87	71	169	163	110	57	87	29	100	80	81	87
"	Aberdeen, Cranford.....	81	77	63	72	198	178	62	79	40	189	72	111	100
"	Keith.....	120	100	69	118	118	280	97	86	31	156	55	70	104
"	Cawdor.....	79	109	102	116	162	202	79	107	23	177	66	65	104
XVIII.	Fort Augustus, St. Benedict's..	83	146	139	107	110	176	65	130	35	49	70	100	96
"	Applecross Gardens.....	96	177	157	159	96	185	111	116	33	62	74	111	107
XIX.	Dunrobin Castle.....	157	132	81	122	108	228	56	140	38	60	77	83	102
"	Watten.....	139	90	79	110	53	184	43	115	20	75	59	53	80
XX.	Cork, Roche's Point.....	23	48	44	99	158	108	90	81	45	120	91	123	84
"	Killarney.....	35	44	76	105	137	98	58	89	37	116	72	125	81
"	Waterford, Brook Lodge.....	19	57	43	141	184	167	98	81	45	153	138	125	102
"	Broadford, Hurdestown.....	48	101	126	157	127	145	85	92	59	156	136	131	112
"	Miltown Malbay.....	55	125	116	105	120	124	94	116	77	145	108	111	107
XXI.	Abbey Leix, Blandsfort.....	31	72	98	141	155	149	137	79	44	171	119	117	108
"	Dublin, Fitz William Square....	20	66	105	131	165	146	77	74	26	166	99	90	97
"	Mullingar, Belvedere.....	35	112	133	86	147	137	62	78	27	143	75	95	91
XXII.	Ballinasloe.....	57	105	120	100	149	157	87	77	45	125	100	116	101
"	Clifden, Kylemore House.....	49	73	96	132	102	119	68	105	49	142	66	122	93
"	Collooney, Markree Observatory	85	115	161	136	162	174	79	97	46	110	74	110	108
XXIII.	Belturbet, Cloverhill.....	62	99	143	89	129	174	64	75	58	116	90	98	97
"	Seaforde.....	38	69	118	108	234	207	66	95	42	145	77	102	103
"	Ballymena, Harryville.....	72	104	157	115	170	211	119	107	44	114	92	99	113
"	Buncrana, Rockfort.....	60	105	171	112	161	167	95	132	33	74	83	99	102
	ENGLAND & WALES (38 Stations)	52	77	70	145	151	138	77	85	25	150	88	130	98
	SCOTLAND.....(18 " )	78	106	110	121	154	183	75	122	35	126	76	104	103
	IRELAND.....(15 " )	46	86	114	117	153	152	85	92	45	133	95	111	100
	BRITISH ISLES ....(71 " )	57	86	89	133	152	153	78	96	32	140	86	119	100

what is usually the wettest month of the year, October, with a general rainfall of 5·84 in. for England and Wales ; and this month, though not with so great a figure, has the highest rainfall also in Scotland and Ireland. The study of droughts and rain spells has already made this contrast familiar to the reader who follows the order in which our discussions are set out. At this point the parallelism between the rainfall returns for the three kingdoms breaks down. In England and Wales the three months next in low rainfall to September are seen to be January, February and March ; the month next in high rainfall to October is December, and the most conspicuous fact regarding the rest of the year is the solid block of three months with a general rainfall between 3 and 4 inches—April, May and June. In Scotland June, August and December appear to compete closely with October, and April and July are the only months except September with a general rainfall less than 3 inches. In Ireland, as usual, the variations from month to month were less pronounced than in Great Britain.

The Table of 230 stations affords much interesting matter for study as to the actual monthly falls at individual stations, and it is useful for comparison when reading the Observers' Notes on the Month in Part II. ; but since the normal rainfall differs from point to point the average at every station should be known in order to see how the year in question stands in comparison with others. We cannot give the averages of the 230 stations, because many have only recently been established and a serviceable average does not exist. We are, therefore, compelled to use a smaller number of stations which have been kept up long enough to yield a satisfactory average, and of these it has been possible to obtain 71, distributed very uniformly over England and Wales, and as well as possible over Scotland and Ireland, and here we must again assure our Scottish and Irish friends that it is not from any desire to do injustice to those countries that they are not perfectly represented, the fault lies with the non-existent observers who ought to have kept records but did not.

The rainfall for each month at each of the 71 stations is calculated as a percentage of the average, so that when the month was "dry," or below the average, the figure is less than 100, when the month was "wet," or above the average, it is more than 100. The variations from place to place in the same month are so considerable that they can only be followed properly on a map, and as usual a map of rain



fall expressed in percentages of the average has been prepared for each month. These maps are based in the first instance on Table I., but before the lines are drawn to mark off the areas with various degrees of dryness and wetness, a number of averages for other stations less regularly distributed are inserted to guide the draughtsman, and the maps of actual rainfall are also consulted in order to get a clue as to the path of the line in doubtful places.

It was the custom to have the monthly maps drawn six on a page in the early years when they were only rough diagrams ; when they ceased to be diagrams, and became real representations of distribution in 1903, the size was increased to admit only four on a page, and now we have decided to increase the scale (or rather to diminish the reduction) a stage further. We intended at first to place the maps two on a page and insert them as plates, but this would have involved the inconvenience of turning the book sideways every time they were consulted, and so we resolved to give the maps with the text, as has been done in the section on maximum falls. Here also there is some inconvenience, as the description cannot always appear on the same page as the map to which it refers.

### JANUARY.

The year opened with a dry month, which proved indeed the driest except September in all parts of the country, and in England and Wales the actual rainfall was smaller also than in any month but September. The only extensive area where the rainfall exceeded the average was the extreme north of Scotland, where a considerable part of Sutherlandshire had an excess of more than 50 per cent. The shortage of rain was on the whole more marked in the inland parts of Scotland and England than on the coast ; the driest part of Great Britain was, however, in the east of Co. Durham, the neighbourhood of Oxford coming next. Absolute droughts occurred at Darlington, Oxford and Crewkerne ; and a partial drought over the country between Brighton and Oxford. In Ireland, the south-eastern corner had less than 25 per cent., and the shortage became less towards the north-west, as much as 85 per cent. of the average having been recorded at Markree. While rather more than three-quarters of the normal rainfall was received in Scotland, just over half the normal amount fell in England, and rather less than half in Ireland. The month was a memorable one in meteorological annals, because in the centre of an anticyclone, which brought a pressure of



more than 31 inches to the east of Scotland on the 23rd, the highest barometer ever authenticated for any part of the world was observed at Riga, where the reading corrected and reduced was 31.51 inches.

### FEBRUARY.

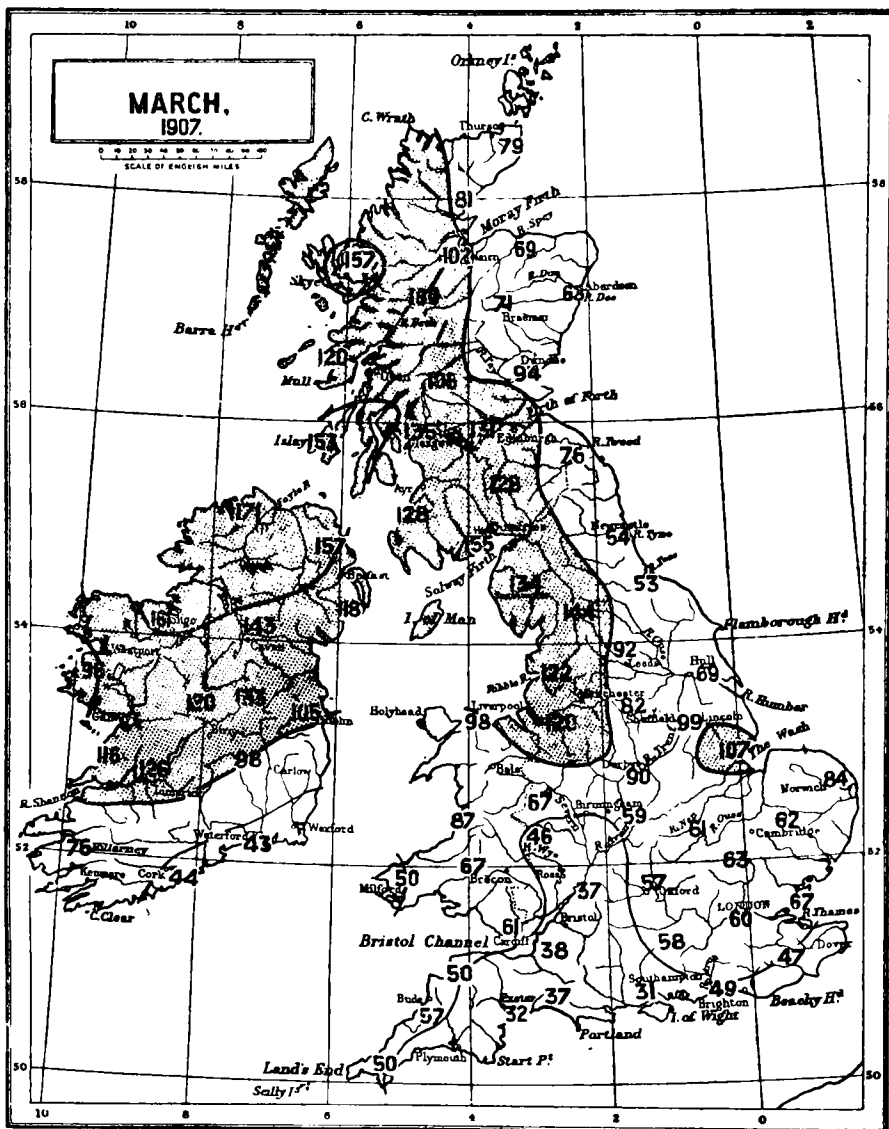
A dry month; the general deficiency of rainfall over the British Isles being about 14 per cent. Scotland received about 6 per cent. more than the average, and in the north and west the excess in some parts was more than 50 per cent. Ireland had an excess in the north-western half and a deficiency in the south-eastern; but the latter was more intense, and the general deficiency was about 14 per cent.



In England and Wales the whole country had less than the average, except in three very small patches around Norwich, Derby and Leeds where there was a slight excess: the general deficiency was 23 per cent.

### MARCH.

The third dry month of the year was the fourth consecutive month in which the general rainfall of the British Isles was below the average. On this occasion, however, the deficiency was mainly due to England and Wales, where it amounted to 30 per cent. of the average. During March the rainfall over a large area round the east coast and across the centre of England was less than 1 inch, while it



exceeded 2 inches only in the lofty lands of Wales, the Lake District, and the Pennines. It was one of the sunniest months of March on record in all parts of England, and the brilliant summer-like weather of Easter week will long be remembered. The deficiency of rainfall was greatest on the south coast and in the lower valleys of the Severn and Wye ; and in the north-west there was a marked, though not a great excess. The east of Scotland showed a slight deficiency, the west a somewhat greater excess, the general result being an excess for Scotland of about 10 per cent.

In Ireland, once more there was a very well marked and regular increase in the rainfall, both absolutely and relatively, from the

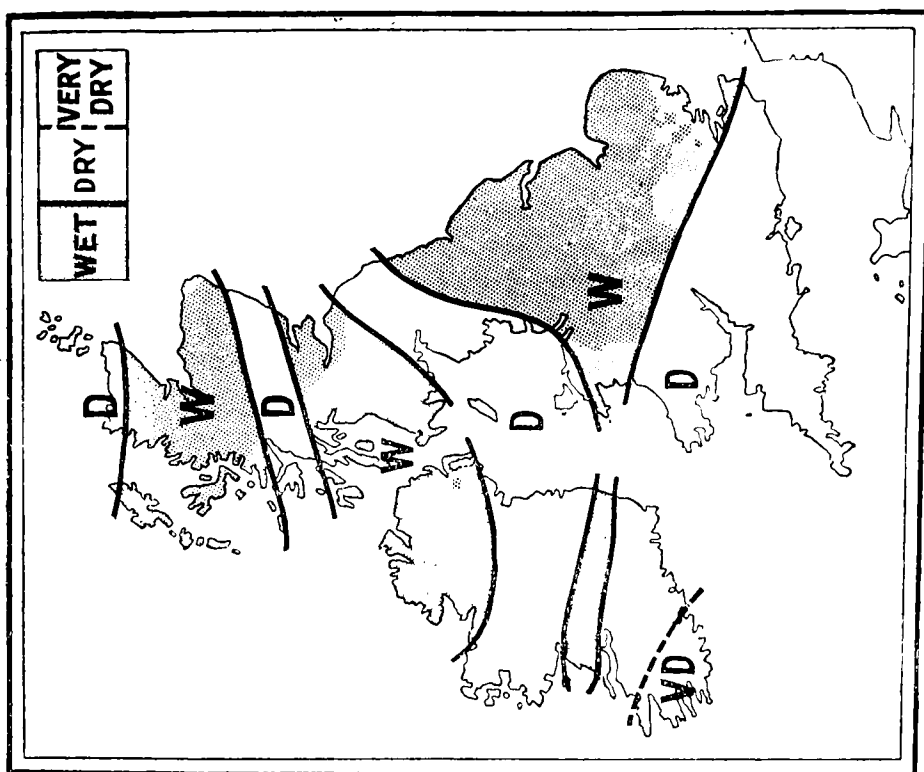
south-east where there was a deficiency of more than 50 per cent., to the north-west where there was an excess of more than 70 per cent. The general excess over Ireland was about 14 per cent.

### THE WINTER SIX MONTHS.

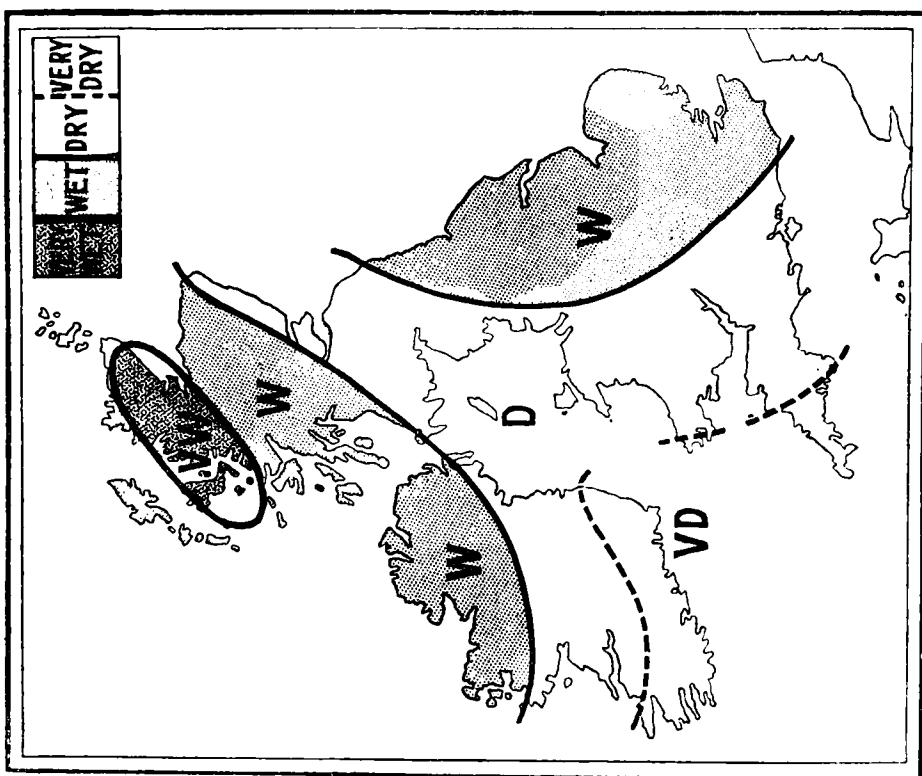
Wherever we divide the year we find some inconvenience, and a great deal might be said in favour of grouping the months into seasons, and the seasons into a year which commences at some other date than January 1st. Without departing from the conventional limits of the calendar year, we may obviate at least some of the inconveniences by considering together the six months of the winter half-year, three of which belong to 1906, the six months of the summer half-year, and the whole year ending with September 30th. A pleasant subject for debate, if time were no object, would be afforded by the question whether the summer six months preceding, or the summer six months following the period October, 1906—March, 1907, should be used to make up the rainfall year; but at present we are content with taking the summer, which yields the most recent data. The Table on pp. [139-141] presents a summary of all the figures, but we shall now deal only with the six months surrounding the winter solstice. Speaking generally the last three months of 1906 were wet, except in Ireland, the first three months of 1907 were dry everywhere, except in the north of Scotland, and the result comes out very little below the average for England and Wales, a slight excess (about 9 per cent.) for Scotland, and of course a very considerable deficiency (some 14 per cent.) for Ireland; the British Isles as a whole having very little less than the average rainfall.

The actual rainfall varied considerably from point to point, and the map, of which we give a generalized reduction on next page, shows that the winter half-year was very dry (deficiency more than 25 per cent. of the average) in the south of Ireland and of Cornwall, and distinctly dry along a zone including Wales, the west of England (except Lancashire), the south-east of Scotland and the centre of Ireland. On both sides of the dry zone the rain was in excess, slightly so in the east of England, the north of Ireland, and the south of Scotland, and to a marked degree (exceeding 25 per cent. of the average) in the north of Scotland.

RELATION OF RAINFALL TO AVERAGE,  
SIX MONTHS APRIL, 1907-SEPT., 1907.



RELATION OF RAINFALL TO AVERAGE,  
SIX MONTHS OCT. 1906-MAR. 1907.



*Seasonal Rainfall, 1906-1907, in Relation to the Average, 1870-1899.*

Div.	Stations.	Winter Six Months, October, 1906—March, 1907.				Summer Six Months, April — September, 1907.				12 Months, Oct., 1906—Sept., 1907.	Per cent. of Average.
		Rain- fall.	Aver- age.	Difference from Average.		Rain- fall.	Aver- age.	Difference from Average.			
				in.	p. c.			in.	p. c.		
I.	St. Pancras, Camden Square.....	12.59	12.55	+	.04	11.51	12.61	—	1.10	91	96
II.	Tenterden .....	15.64	15.66	—	.02	10.41	12.70	—	2.29	82	92
"	Arundel, Patching .....	17.90	17.62	+	.28	11.15	13.11	—	1.96	85	95
"	Southampton, Cadland .....	16.53	18.18	—	1.65	12.58	14.26	—	1.68	88	90
III.	Basingstoke, Sherborne St. John .....	17.55	15.62	+	1.93	14.56	13.11	+	1.45	111	112
	Hitchin, Wratten .....	13.58	12.21	+	1.37	12.12	12.45	—	.33	97	104
	Oxford, Magdalen College .....	11.16	12.08	—	.92	12.12	12.46	—	.34	97	95
"	Wellingborough, Croyland Abbey .....	13.86	12.29	+	1.57	13.86	13.02	+	.84	106	110
IV.	Shoeburyness .....	11.84	10.09	+	1.75	8.32	9.66	—	1.34	86	102
"	Bury St. Edmunds, Westley .....	14.65	12.16	+	2.49	12.92	13.23	—	.31	98	109
"	Norwich, Brundall .....	16.03	12.63	+	3.40	11.55	12.77	—	1.22	90	109
V.	Cerne Abbas, Melbury House ..	17.92	22.48	—	4.56	13.11	16.14	—	3.03	81	80
"	Sidmouth, Sidmount .....	12.09	17.86	—	5.77	13.67	14.51	—	.84	94	80
"	Norham Vicarage .....	17.08	20.70	—	3.62	14.18	15.49	—	1.31	92	86
"	Falmouth Observatory .....	19.70	26.48	—	6.78	19.96	16.74	+	3.22	119	92
"	Altarnon .....	29.88	36.17	—	6.29	24.84	23.76	+	1.08	105	91
"	East Harptree, Sherborne Res...	17.96	22.49	—	4.53	17.95	18.67	—	.72	96	87
VI.	Stroud, Upfield .....	13.99	15.02	—	1.03	15.16	14.83	+	.33	102	98
"	Leominster, Farm .....	13.00	14.66	—	1.66	12.91	14.31	—	1.40	90	89
"	Church Stretton, Wolstaston ..	16.06	17.18	—	1.12	17.23	15.86	+	1.37	109	101
"	Coventry, Kingswood .....	13.21	14.50	—	1.29	15.40	14.71	+	.69	105	98
VII.	Boston .....	12.66	11.05	+	1.61	10.36	12.25	—	1.89	85	99
"	Lincoln, Doddington ..	12.87	11.36	+	1.51	11.92	12.42	—	.50	96	104
"	Mickleover Manor .....	16.13	12.57	+	3.56	15.88	14.14	+	1.74	112	120
VIII.	Northwich, Highfield .....	16.17	15.03	+	1.14	17.26	15.93	+	1.33	108	108
	Blackburn, Guide Reservoir .....	22.08	20.32	+	1.76	21.82	19.64	+	2.18	111	110

*Seasonal Rainfall, 1906-1907, in Relation to the Average, 1870-1899—(continued.)*

Div.	Stations.	Winter Six Months October, 1906—March, 1907.				Summer Six Months, April — September, 1907.				12 Months, Oct., 1906—Sept., 1907.	
		Rain- fall.	Aver- age.	Difference from Average.		Rain- fall.	Aver- age.	Difference from Average.			
				in.	p. c.			in.	p. c.		in.
IX.	Barnsley, Church Street.....	14.12	13.20	+	.92	12.80	14.08	—	1.28	91	99
"	Wetherby, Ribston Hall.....	15.80	12.97	+	2.83	12.58	13.99	—	1.41	90	105
"	Arneliffe Vicarage .....	39.74	35.06	+	4.68	26.36	25.90	+	.46	102	108
"	Hull, Pearson Park .....	14.41	13.52	+	.89	12.24	13.50	—	1.26	91	99
"	Middlesbrough, Albert Park.....	10.60	11.26	—	.66	11.62	13.01	—	1.39	89	92
X.	Newcastle, Town Moor .....	14.67	13.87	+	.80	13.78	14.12	—	.34	98	102
"	Borrowdale, Seathwaite .....	70.27	78.82	—	8.55	54.34	53.86	+	.48	101	94
XI.	Cardiff, Ely.....	20.55	23.27	—	2.72	17.88	19.54	—	1.66	92	90
"	Dolaucothy.....	30.07	33.85	—	3.78	26.82	25.72	+	1.10	104	96
"	Haverfordwest, High Street .....	23.98	28.12	—	4.14	20.77	19.76	+	1.01	105	93
"	Aberystwyth, Gogerddan .....	23.65	24.58	—	.93	22.98	20.83	+	2.15	110	103
"	Llandudno .....	15.08	16.92	—	1.84	11.53	14.06	—	2.53	82	86
XII.	Auchencairn, Torr House .....	27.23	25.66	+	1.57	26.72	20.79	+	5.93	129	116
"	Moffat, Ericstane .....	28.41	33.95	—	5.54	23.01	21.02	+	1.99	109	94
XIII.	Marchmont House .....	19.41	17.57	+	1.84	16.41	17.37	—	.96	94	103
XIV.	Girvan, Pinmore .....	32.09	28.36	+	3.73	26.49	20.51	+	5.98	129	120
"	Loch Thom.....	39.71	36.09	+	3.62	32.26	27.99	+	4.27	115	112
XV.	Falkirk, Kerse .....	18.23	17.13	+	1.10	16.78	14.48	+	2.30	116	111
"	Islay, Eallabus .....	30.97	28.00	+	2.97	24.97	19.68	+	5.29	127	117
"	Mull, Quinish.....	33.38	33.58	—	.20	23.37	23.95	—	.58	98	99
XVI.	Balquhider, Stronvar.....	41.12	45.49	—	4.37	28.45	29.22	—	.77	97	93
"	Dundee, Eastern Necropolis .....	12.95	14.32	—	1.37	17.50	14.63	+	2.87	120	105
XVII.	Braemar .....	20.04	19.17	+	.87	16.07	16.90	—	.83	95	100
"	Aberdeen, Cranford .....	20.02	17.22	+	2.80	15.31	15.79	—	.48	97	107
"	Keith .....	20.44	15.30	+	5.14	19.39	17.42	+	1.97	111	122
"	Cawdor .....	17.15	14.19	+	2.96	16.16	15.18	+	.98	106	113



*Seasonal Rainfall, 1906-1907, in Relation to the Average, 1870-1899—(continued).*

Div.	Stations.	Winter Six Months, October, 1906—March, 1907.				Summer Six Months, April — September, 1907.				12 Months, Oct., 1906—Sept., 1907.
		Rain- fall.	Aver- age.	Difference from Average.		Rain- fall.	Aver- age.	Difference from Average.		
				in.	p. c.			in.	p. c.	
XVIII.	Fort Augustus, St. Benedicts ...	31.73	26.69	+ 5.04	119	16.52	17.02	— .50	97	110
XIX.	Applecross Gardens .....	42.20	32.12	+ 10.08	131	24.41	22.68	+ 1.73	108	122
	Dunrobin Castle .....	23.59	17.45	+ 6.14	135	15.58	14.15	+ 1.43	110	124
XX.	Watten .....	15.70	14.54	+ 1.16	108	10.54	12.87	— 2.33	82	96
	Cork, Roche's Point.....	13.06	27.66	— 14.60	47	18.20	19.73	— 1.53	93	66
"	Killarney .....	22.14	34.58	— 12.44	64	19.58	23.53	— 3.95	83	72
	Waterford, Brook Lodge.....	14.30	22.13	— 7.83	65	19.26	17.17	+ 2.09	112	85
"	Broadford, Hurdlestown.....	16.69	17.02	— .33	98	17.45	16.45	+ 1.00	106	102
	Miltown Malbay .....	25.02	23.28	+ 1.74	108	22.23	21.20	+ 1.03	105	106
XXI.	Abbey Leix, Blandsfort .....	14.59	18.24	— 3.65	80	19.09	16.95	+ 2.14	113	96
	Dublin, Fitzwilliam Square .....	10.36	14.06	— 3.70	74	13.47	13.69	— .22	98	86
"	Mullingar, Belvedere .....	18.38	18.33	+ .05	100	15.45	18.15	— 2.70	85	93
	Ballinasloe .....	(16.84)	19.10	— 2.26	88	17.57	17.94	— .37	98	93
XXII.	Clifden, Kylesmore House .....	34.69	44.78	— 10.09	77	33.02	35.45	— 2.43	93	84
	Collooney, Markree Observatory .....	24.02	22.10	+ 1.92	109	21.52	19.73	+ 1.79	109	109
XXIII.	Belturbet, Cloverhill .....	17.55	16.53	+ 1.02	106	15.40	16.39	— .99	94	100
	Seaforde .....	17.96	20.56	— 2.60	87	21.17	18.05	+ 3.12	117	101
"	Ballymena, Harryville.....	24.10	21.00	+ 3.10	115	22.88	18.64	+ 4.24	123	119
	Buncrana, Rochfort .....	22.43	22.24	+ .19	101	21.44	19.24	+ 2.20	111	106
	ENGLAND & WALES (38 stations)	18.56	19.33	— .77	96	16.22	16.50	— .28	98	97
	SCOTLAND (18 " )	26.35	24.27	+ 2.08	109	20.55	18.98	+ 1.57	108	108
	IRELAND (15 " )	19.47	22.77	— 3.30	86	19.85	19.48	+ .37	102	93
	BRITISH ISLES (71 " )	20.72	21.30	— .58	97	18.09	17.76	+ .33	102	99



### APRIL.

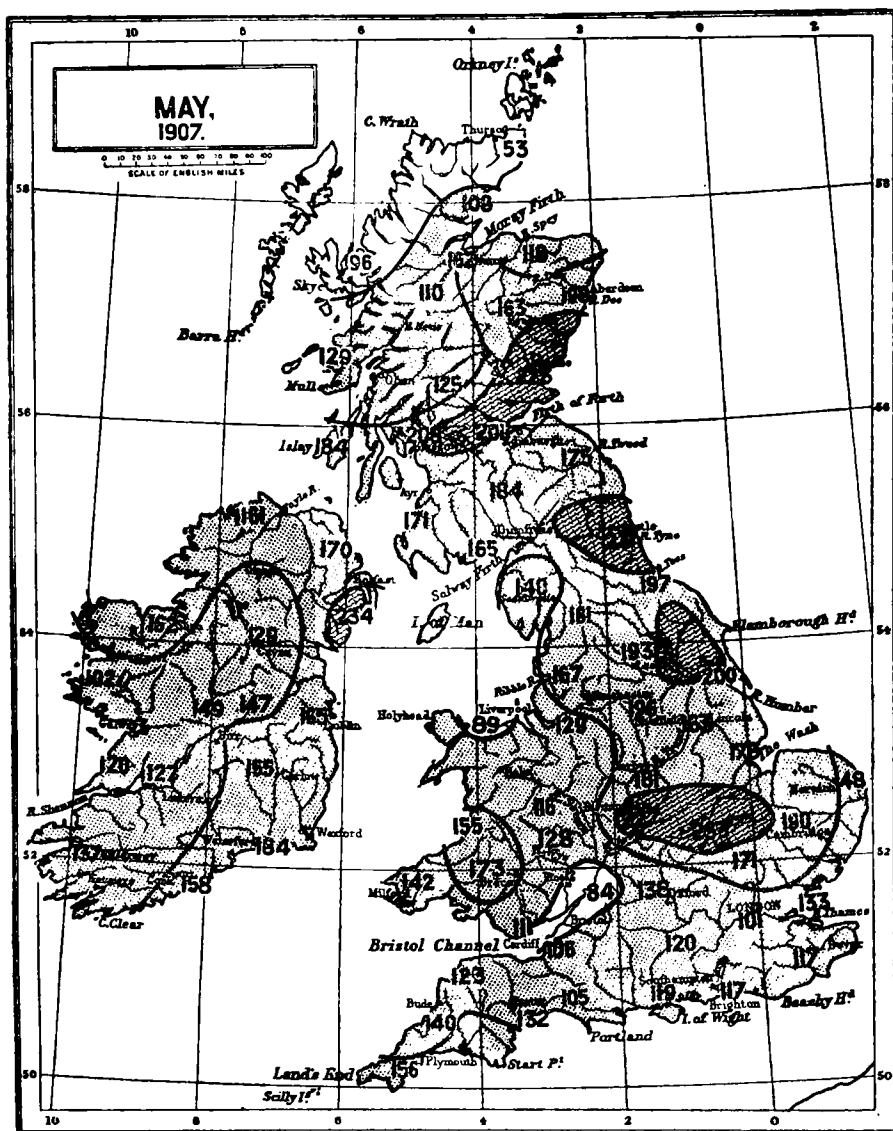
This month was generally wet, the excess for the British Isles amounting to 33 per cent.; and it was wettest in England and Wales, where the excess amounted to 45 per cent. In Scotland the excess was slightly more, and in Ireland slightly less, than 20 per cent. The most remarkable feature was the high rainfall of the south of England, the area with more than 4 inches extending with only a slight break from Wales and Cornwall along the strip between the Thames and the south coast, as far as Hampshire and Sussex. At many places this was the wettest April for more than 20 years.

The lowest rainfall was in the plain from Lancashire round the Pennine Chain to Lincolnshire, and northward along the east coast to Cromarty, all that area having less than 2 inches of rain. The map showing the relation to the average reproduced here, shows that large areas with more than twice the average rainfall extended along the south coast of England, northwards the excess became uniformly less, until a broad dry belt stretched across from North Wales and Lancashire to Yorkshire and Lincoln, and in parts of this belt less than 75 per cent. of the average fell. Northward there was again a slight excess, which prevailed over the greater part of Scotland, and the same distribution was found in Ireland, where only a small area in the east had less than the average.

### MAY.

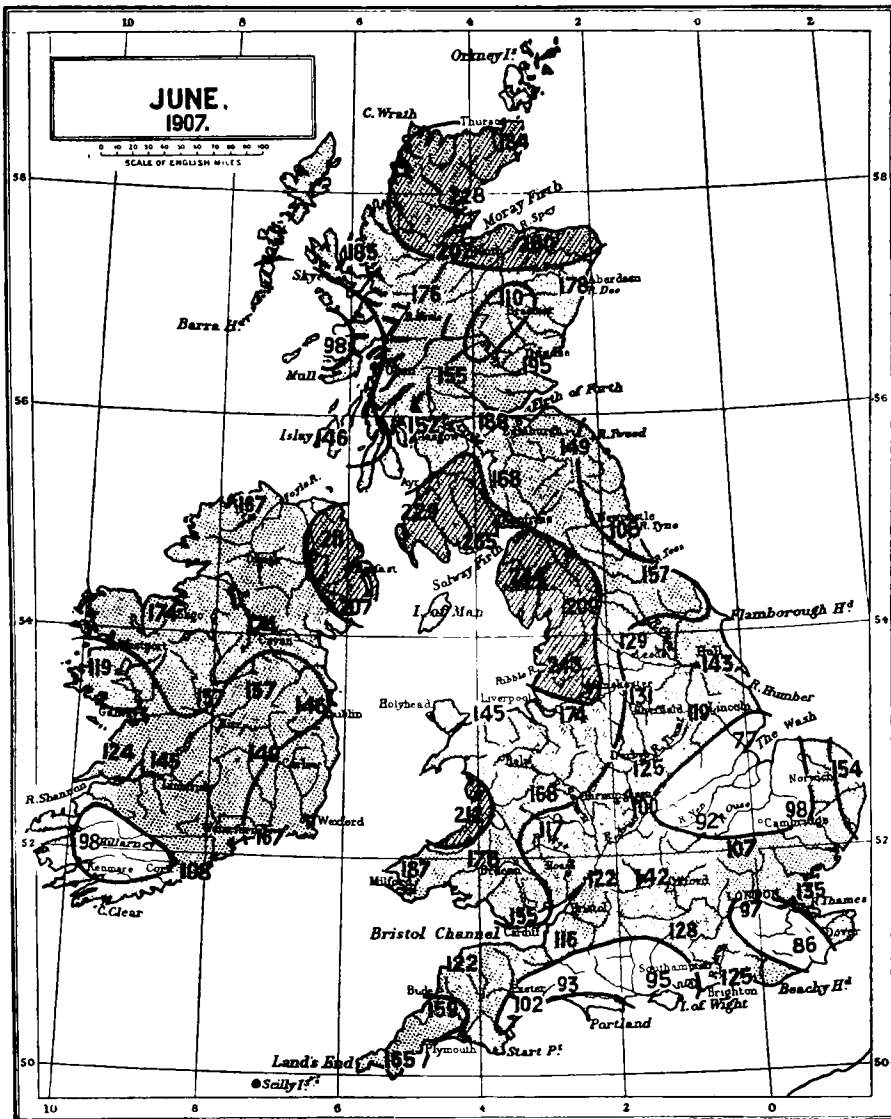
May and June were, compared with the average, the wettest months of the year for the British Isles as a whole ; and May was the wettest month for England and Wales, and for Ireland, though not for Scotland. All three kingdoms were more nearly alike in the divergence of their rainfall from the average than in any other month ; for in England and Wales the excess was 51 per cent., in Scotland 54 per cent., in Ireland 53 per cent., and over the British Isles as a whole 52 per cent. The area with more than 4 inches of rain was very large, and extended, as it rarely does, to the eastern Midlands ; but along the river Thames and the northern margin of its estuary there was a narrow strip with less than 2 inches, this being the least rainy part of the country. Scarcely any part of the country, however, was able to report a rainfall below the average, the map only shows a spot in the lower Severn valley, a smaller spot in North Wales, and a slice of the north-west of Scotland with any recorded deficiency ; there was none in Ireland. On the other hand, in the wet belt which stretched with an excess of more than 50 per cent. from the Highlands to Hertfordshire, there were four substantial tracts of country with more than twice their average rainfall ; these were between Glasgow and Dundee, round Newcastle, round York, and between Birmingham and Cambridge.

[*For map, see next page.*]



### JUNE.

The midsummer month, which had the sad distinction of being one of the coldest Junes on record, was also relatively the wettest for the British Isles in the whole year, with an excess of 53 per cent. ; though as it is normally a month of low rainfall, it was exceeded in the absolute quantity of rain which fell by October and December only. From many of our correspondents came the report that it was the darkest, coldest and wettest June ever known, and several of the records extended to 50 years. The area with more than 4 inches in the month was very similar to that in May, but it was more extended in the west and north, and did not invade the Midlands or the east of



England, where there was a good deal of country with less than 2 inches. Indeed, a few places in the south and east of England had rather less than the average rainfall, and so three white patches appear upon the map showing the relation to the average. One such patch also appears in the south-west of Ireland, and one in Mull ; but as each of these depends on one station, which was barely below the average, they need scarcely be mentioned. Over the rest of the British Isles the month was wet, and in two great areas very wet. The first of these areas with more than twice the average includes Lancashire, the Lake District, Galloway and the east of Ulster ; the

second, equally wet, takes in the extreme north of Scotland to the southern shore of the Moray Firth.

The largest falls, of course, occurred in the former area, and we add a list of stations which reported more than 11·50 in. in the month. The value for Llyn Llydaw Copper Mine, 31·35 in., is very large, and is not too satisfactorily confirmed by the 23·60 in. at Llyn Llydaw Intake.

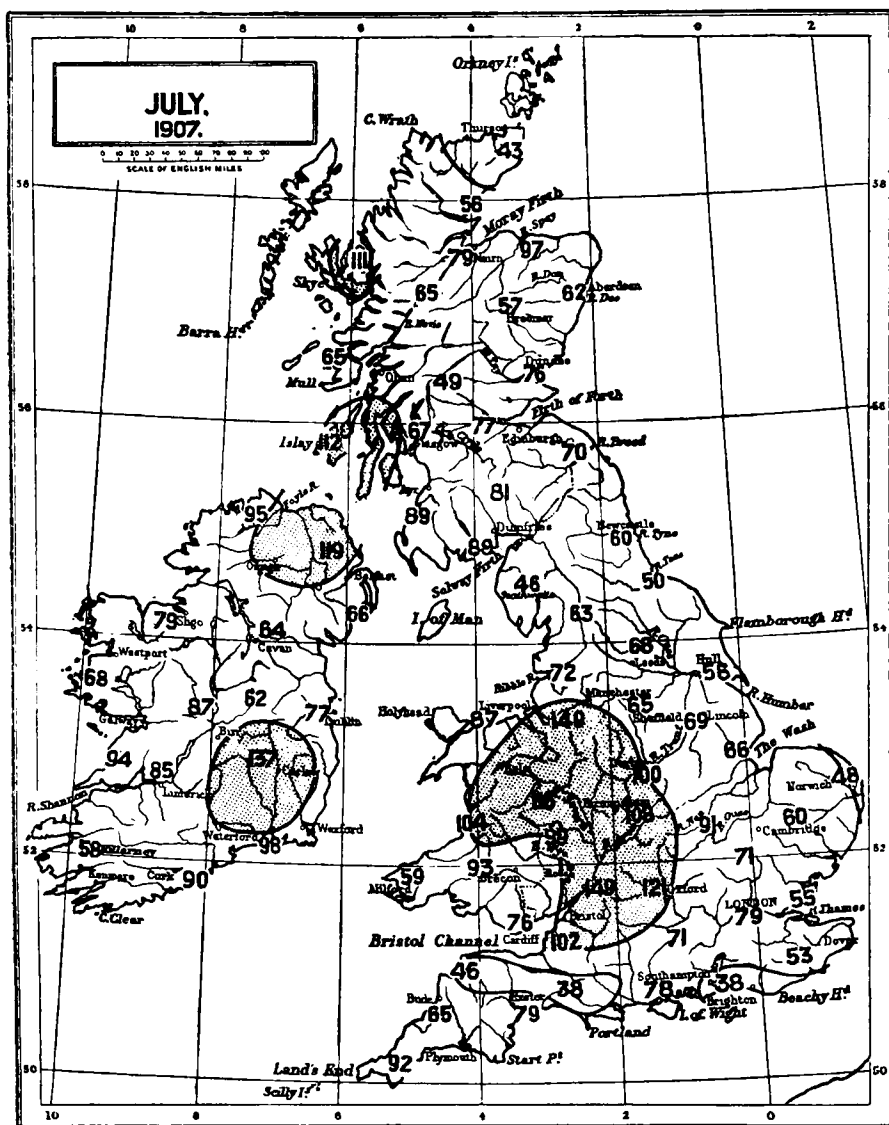
	in.		in.
XI. Snowdon (Llyn Llydaw C.M.)	31·35	X. Litt. Langdale (Fell Foot)	12·70
X. The Styne .....	25·70	„ Helvellyn (Birkside)...	12·40
„ Styne Head Tarn .....	24·85	XVIII. Glenshiel (Cluanie Forest)...	12·33
XI. Snowdon (Llyn Llydaw Intake)	23·60	XI. Taff Fechan (Neuadd Res. No. 6)	12·30
X. Borrowdale (Seathwaite)	17·04	X. Ambleside (Skelwith Bridge)	12·14
XI. Blaenau Festiniog (Oakley Q.)	16·97	VIII. Hawkshead (Esthwaite Mt.)	12·10
„ Plynlimon .....	15·25	„ Monk Coniston Park..	11·93
X. Ullscarf .....	15·20	IX. Slaidburn (Hareden Brook).	11·80
„ Buttermere (Hassness)	14·99	X. Dungeon Ghyll .....	11·74
XI. Glyncorwg .....	13·88	VIII. Skelwith Fold [Ambleside]..	11·72
VIII. Garstang (Fairsnape Fell)...	13·82	IX. Slaidburn (Whitendale)	11·71
XI. Garthbibio (Bwlch Tomlyd).	13·60	„ Sedbergh (Dent Vic.)..	11·66
X. Grizedale (Ruthwaite Lodge)	13·49	XI. Treherbert (Tyn-y-waun)	11·61
„ Mickleden .....	12·96	IX. Slaidburn (Langden Brook).	11·60

While Ireland was practically just as wet as in May with an excess of 52 per cent., and England and Wales were decidedly less wet with an excess of 38 per cent., Scotland was far wetter, and its great excess of 83 per cent. was not approached in any other month. It did not fall so very much short of the famous wet May of 1906, to which we devoted a considerable amount of space in our last volume.

## JULY.

A dry month, though it proved nearly as cold and cloudy as June. A very small part of the British Isles had as much as 4 inches of rain, and but for the terrific local thunderstorms of the 21st and 22nd there would have been hardly any. These storms gave a patchy and irregular distribution on account of which the general rainfall deduced from the small number of stations employed must be taken with caution. It seems, however, that on the whole, England and Wales had a deficiency of about 23 per cent., Scotland of about 25 per cent., Ireland 15 per cent., and the British Isles as a whole 22 per cent.

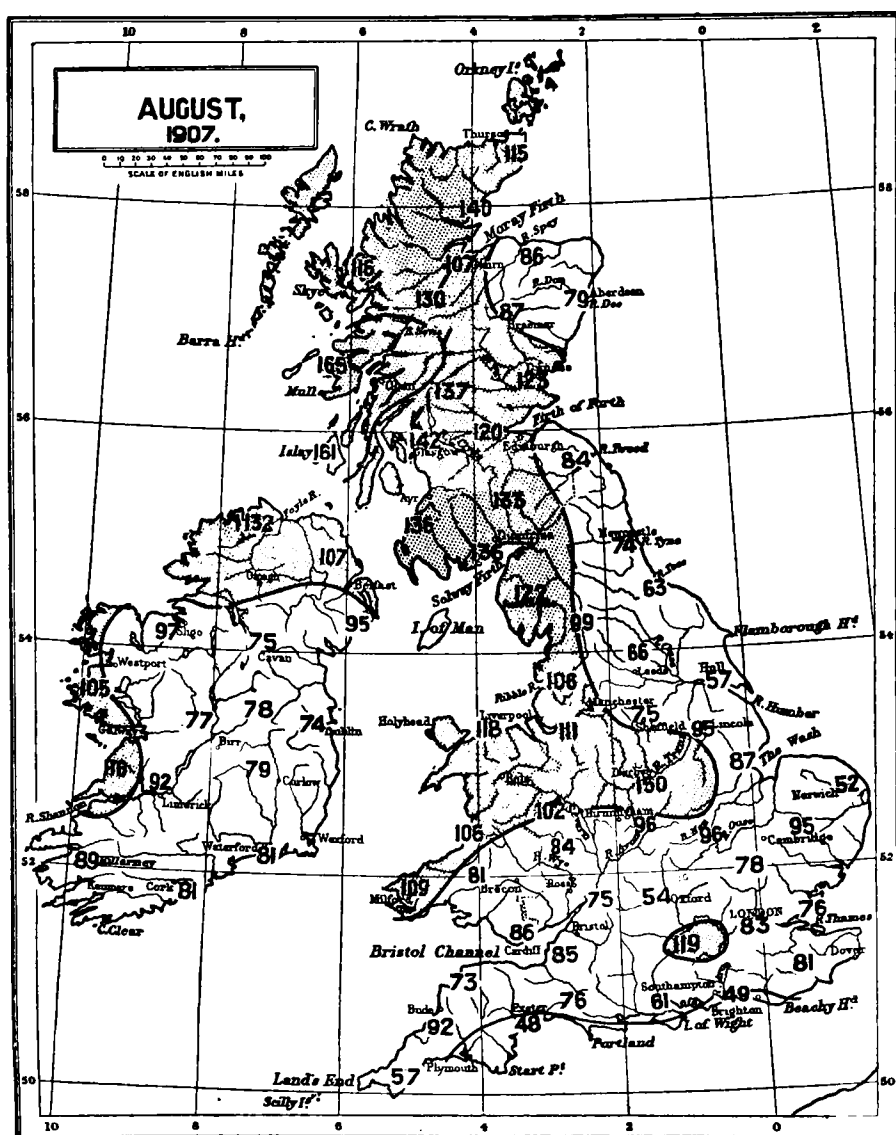
The average was exceeded at a few points in the east of Ireland and the west of Scotland, and over a large area in central Wales and the west of England; and there were a few small patches on the



south coast of England and along the east of Great Britain in which the deficiency of rainfall touched or exceeded 50 per cent. of the average.

### AUGUST.

The month was again cool and cloudy, rather wet in Scotland, where there was a general excess of about 22 per cent. ; rather dry in England and Wales, where there was a general deficiency of about 15 per cent. ; nearer the average in Ireland, with a deficiency of about 8 per cent., and for the British Isles as a whole approaching the average, the deficiency being only about 4 per cent. The rainfall was everywhere high in the west, a rim of more than 4 inches



running round the west and north of Ireland : Wales, the Pennine Chain and all Scotland, except the east coast had as much rain, and a very large expanse of the West Highlands had more than 8 inches of rainfall in a month when it was felt by thousands of visitors who would gladly have gone without. A large part of the south and east of England on the other hand received less than 2 inches. The north-west of England and Wales and the whole of Scotland, except the extreme east, had more than the average, and so had the western edge of Ireland and a portion of the north. The only area wet enough to record an excess of more than 50 per cent. lay in the West Highlands, and the only portion of the dry area with a deficiency of 50 per cent. was the extreme south coast of England.





**SEPTEMBER.**

The remarkable dryness of this month has been acclaimed by many observers in their "Notes" as the salvation of the harvest, and it has already been treated in some detail when speaking of the great absolute drought which reigned over the larger part of England and the whole of Wales, for between a fortnight and three weeks. Thunderstorms were remarkably infrequent, and no very heavy falls of rain were reported. Scarcely any station recorded so much as 4 inches of rain, and on a large scale map it was impossible to show a higher isohyetal line than 3 inches, and that was only found in the heart of the West Highlands and in the extreme west

of Ireland. Falls of 2 inches or more were extremely rare in England, and only occurred in about half the area of Wales, and in the very west of Ireland and Scotland, while all around the south and east coasts of England, and on the coast of North Wales, there were small or large areas which received less than half-an-inch for the month. Some of the falls reported were very small :—

*September, 1907. Falls of .26 or less.*

Div.	in.	Div.	in.
II. Maidstone (Allington).	.10 ?	IV. Norwich (Postwick Hall)	.25
VII. Bawtry Hall .....	.14 ?	VI. Kempsey (Draycott).....	.25
X. Ullswater (Sharrow Bay)	.18 ?	X. Durham Observatory.....	.25
XVIII. Evanton (Swordale House)	.20	II. Littlebourne House.....	.26
XI. Llandudno (Warwick House)	.22	„ Canterbury (Medical Hall)	.26
IV. Raveningham Hall.....	.23	IV. Lowestoft (The Clyffe, Corton)	.26
VIII. Thurstaston (Dawpool)	.23	„ Moulton .....	.26
X. Cliburn Rectory .....	.23	VIII. Handforth .....	.26 ?
II. Canterbury (St. Thomas' Hill)	.24	IX. Rotherham (Ulley Reservoir)	.26
IV. Bury St. Edmunds		X. Seaham (Dalton Pumping Stn.)	.26
(Fornham St. Martin)	.24	„ Bassenthwaite (Bassenfell)	.26
IX. Doncaster (Hexthorpe Hall)	.24	„ Brampton (Denton Ho.).	.26
IV. Lowestoft (Belle Vue)..	.25		

As in 1906 September was the driest month of the year, but the deficiencies in 1907 were the greater. In England and Wales the general deficiency was 75 per cent., in other words there was only one quarter of the average amount of rain: in Scotland the deficiency was 65 per cent., and in Ireland 55 per cent., while taking the British Isles as a whole the general deficiency was 68 per cent., which means that less than one-third of the average amount of rain had been received.

The map showing the deviation from the average is remarkable because it is the only one in the year in which it is all on the same side. The whole country was very dry, the least dry portions being a patch near Edinburgh, where the deficiency was only 45 per cent. ; the western tip of Cornwall, with a deficiency of 29 per cent., and a considerable portion of the west and centre of Ireland, where the deficiency at one station was as little as 23 per cent. On the other hand the greater part of England had a deficiency greater than 75 per cent. of the average, and at Llandudno the lowest rainfall was recorded, showing a deficiency of 92 per cent. Since the detailed study of monthly rainfall began in 1903, September, 1906, was the only other instance of a month in which no part of the British Isles had a rainfall equal to its average.

**THE SUMMER SIX MONTHS OF 1907.**

April, May and June were wet, July and September dry, and August near the average, the result being that the six months, April–September, as set out in the Table on pp. [139]–[141] came very close to the average, Scotland showing an excess of 8 per cent., and Ireland of 2 per cent., while England and Wales, thanks to the special severity of the September drought, had a deficiency of 2 per cent. The British Isles as a whole, with an apparent excess of 2 per cent., may be taken as having had an average supply of rain, the wetness of the early summer having been almost exactly counteracted by the dryness of the later months. The generalized map showing the local variations from the average is given on p. [138]. beside that for the preceding winter six months. It shows a very dry area in the south-west of Ireland, and then an alternation of rather dry and rather wet areas in bands extending from west to east, three of each, with an indication of a fourth dry band in the north. The broad dry band in the south-west of Wales and England is no doubt due to the drought of September, the wet band above it owes its position, in part at least, to the thunderstorm rains of July 21st and 22nd, while the storms of June and October may be held to account for the two northern wet strips. These considerations suggest the great importance on the rainfall of a considerable period of the rain of an individual day and a portion of a single month. The idea is suggested that the striped appearance of the average maps may be due to influences moving from south-west to north-east, in other words to the paths of atmospheric depressions, the variation of which in number and direction taken in conjunction with the protection from precipitation effected over wider and approximately circular areas by anticyclones has possibly most to do with outlining the broad features of rain distribution. We mention this not as demonstrated fact, but as an attractive hypothesis which as the data of more years are studied should be capable of proof or serviceable in pointing to some other solution.

The last column of the Table on pp. [139–140] summarizes the deviations from the average for the twelve months October, 1906—September, 1907, and it shows approximately the same general result as those brought out for the year 1907 itself, which means that the last three months of 1906 were similar on the whole to the last three months of 1907.



west of Ireland. The area of least rainfall was in the north of Scotland, parts of Sutherland and Caithness having less than 2 inches.

The excess was greatest, 50 per cent. in England and Wales ; it was 33 per cent. in Ireland ; and in Scotland it was least with 26 per cent. ; the general excess for the British Isles, as a whole, being about 40 per cent. Some of the largest rainfalls are :—

*October, 1907. Falls exceeding 10·50 in. in the South of England.*

	in.		in.
V. Princetown (H.M.Prison)	12·63	V. Wareham (Holme) .....	10·76
„ Kingsbridge (Westcombe)	12·30	II. Bournemouth (Vale View)	10·75
„ Berwick St. John (Ferne)	11·70	V. Bere Regis (Bloxworth House)...	10·72
„ Wareham (Binnegar Hall)	11·59	„ Totnes (Berry Pomeroy) ..	10·69
„ Princetown .....	11·30	„ Sheepstor (Head Weir) ...	10·68
II. Bournemouth (Pleasure Gardns.)	10·97	„ Lee Moor Clay Works ...	10·66
„ „ (West Cliff) ...	10·96	„ Wimborne (Codford) .....	10·57
V. East Lulworth Vicarage..	10·82	„ „ (Horton Vic.)..	10·54
„ Yelverton .....	10·82	„ Sheepstor (Redstone) .....	10·54
II. Bournemouth (Clarendon Court).	10·81	„ Princetown (Huccaby Ho.)	10·53
V. Bere Regis (Bloxworth Rectory).	10·78		

From the point of view of the average, October was by no means so remarkable, as a much smaller proportion of the country had twice the normal fall ; indeed, in October there were only two very small patches, one in the Severn valley, the other on the south coast between Exeter and Bournemouth. The only parts of England with less than the average rainfall were London and a patch in Lancashire ; but the north of Ireland and the western Highlands of Scotland were dry, one station in the Great Glen recording less than half the average rainfall, though when measured in inches the amount that fell would appear very large if it had come down in the east of England.

## NOVEMBER.

There is usually a lower rainfall in November than in the months before and after, and in 1907 this drop was accentuated by the month being dry as compared with the average, the deficiencies for England and Wales being about 12 per cent., for Scotland 24 per cent., though for Ireland only about 5 per cent. ; the general result for the British Isles was a deficiency of about 14 per cent. Falls of 4 inches or over were restricted to the hilly lands of the west and north, and reached their largest extension in the south-west of Ireland. Falls less than 2 inches were confined to narrow strips round the coast and along a narrow stretch of the midlands from Lincolnshire to the mouth of the Severn.

Although no place in the British Isles had so little as half its



average rainfall for the month, only a small area had more than the average and the excess was not great. Excesses were shown along the coast in the extreme south-west of England, in a patch between Sheffield and Darlington, in the peninsulas of the south-west of Scotland, and to the greatest extent in the centre and south-east of Ireland.

### DECEMBER.

The year closed with a rather wet month, especially in England and Wales, where the excess of rain was about 30 per cent., and in Ireland, where it was about 11 per cent. The excess in Scotland was only 4 per cent., a scarcely noticeable amount, and the general



excess for the British Isles was under 20 per cent. The rainfall was less than 2 inches on the south shore of the Moray Firth, in North Wales, and along the Thames estuary. Falls of 4 inches and over were experienced in the greater part of Ireland and Wales, in the south-west of England, whence they extended eastward, well into the Thames Valley, in the north-west of England and all parts of Scotland, except the east and north. There was a dry strip in England, extending from the coast of Wales to Manchester, Sheffield, and Lincoln; a large dry area in the east and north of Ireland, and the largest and driest of all (though nowhere was there a deficiency of 50 per cent.) in the north of Scotland.

# MONTHLY RAINFALL AT 230 STATIONS IN THE BRITISH ISLES DURING 1907.

## ENGLAND AND WALES.

Div.	County.	Station.	Jan.	Feb.	March.	April.	May.	June.	July.	August.	Sept.	Oct.	Nov.	Dec.	Total.
I.	London	St. Pancras (Camden Sq.)	.90	1.17	.97	3.22	1.74	2.03	1.96	1.94	.62	2.51	2.16	3.79	23.01
II.	Surrey, West	Haslemere (Jesses).....	.96	1.71	1.15	5.31	2.44	2.07	1.47	2.66	1.00	8.44	3.12	4.41	34.74
"	" East	Worthingham (Redvers Rd.)	1.40	2.15	1.19	3.83	2.15	1.84	1.72	2.46	.71	4.09	2.72	3.83	28.09
"	Kent, West	Tenterden.....	1.00	1.42	.88	3.16	2.01	1.69	1.20	1.93	.42	5.73	2.64	2.78	24.86
"	" East	Hythe (Hillcrest Road)...	.97	1.43	.94	2.19	2.53	1.58	1.95	2.25	.49	6.02	1.84	2.26	24.45
"	"	Ospringe (Lorenden) .....	.80	1.56	.62	2.47	1.92	1.59	1.53	1.57	.29	4.68	2.18	2.73	21.94
"	Sussex, West	Arundel (Patching) .....	1.03	1.46	.93	4.02	1.96	2.37	1.01	1.20	.59	5.35	2.11	3.49	25.52
"	" East	Uckfield (Sheffield Park).	1.16	1.56	.98	3.08	2.20	1.79	2.01	1.61	.80	5.12	2.08	3.37	25.76
"	Hants, I. of W.	Totland Bay (Aston House)	.73	1.12	.54	3.97	1.65	1.35	1.39	1.32	.93	7.07	2.71	3.02	25.80
"	"	Rps. Waltham (Swanmore Ho)	.90	1.63	1.01	4.44	2.35	2.15	2.03	1.94	.48	8.20	2.55	4.76	32.44
"	"	West Dean .....	.85	1.60	.54	4.38	2.15	1.23	1.45	1.79	.46	7.76	2.75	4.28	29.24
"	"	Basingstoke (Sherborne S.J.)	1.05	1.84	1.06	4.61	2.24	2.52	1.82	2.81	.56	6.00	2.81	4.43	31.75
"	Berks.....	Farnborough Rectory.....	.97	1.74	1.38	3.34	2.65	3.11	2.42	1.76	.89	6.70	2.72	5.40	33.08
III.	Herts.....	Hertford (Bayfordbury)...	1.06	1.36	.99	2.81	1.98	1.87	1.74	1.79	.57	3.97	2.40	3.21	23.75
"	"	Royston (Therfield Rec.)..	.91	1.31	.87	3.08	3.02	1.56	2.24	2.52	.64	2.33	2.46	3.48	24.42
"	Bucks	Slough (Upton) ..	.84	1.51	.92	2.97	1.50	1.94	1.52	1.70	.60	4.85	2.18	3.41	23.94
"	"	Greenlands [Henley-on-Thames]	.72	1.48	1.10	2.64	2.11	2.41	1.52	1.97	.67	5.02	2.41	3.60	26.23
"	"	Buckingham (Adstock) ...	.86	1.25	.90	2.36	3.09	2.07	2.30	1.90	.88	4.01	1.98	3.43	25.03
"	Oxford	Oxford (Magdalen College)	.54	1.04	.79	1.87	2.37	2.94	3.06	1.25	.63	5.18	2.09	3.74	25.50
"	Northampton	Wellingborough (Swanspool)	1.14	1.29	1.01	2.01	5.10	1.88	2.56	2.16	.52	3.36	2.21	3.20	26.44
"	Bedford	Shillington .....	1.26	.97	.93	2.57	3.03	1.89	1.89	1.95	.50	3.40	1.93	3.10	23.42
"	Cambridge	Stretham Engine.....	.89	1.07	.88	2.06	2.81	1.53	1.94	1.46	.54	2.05	2.25	2.36	19.84
"	"	Wisbech (Bank House) ...	1.09	1.22	1.02	2.47	1.89	1.44	2.10	2.07	.54	2.73	2.46	2.73	21.76
IV.	Essex.....	Loughton (High Beech)...	.93	1.19	.80	3.15	1.85	1.72	2.46	1.95	.70	3.05	2.53	3.54	23.92
"	"	Chelmsford (High Street)	.93	.85	.85	2.34	2.01	2.08	1.76	1.32	.51	3.23	2.16	2.69	20.73
"	"	Braintree (Bocking, Fennes)-	1.06	.82	.66	2.94	2.24	1.95	1.22	1.83	.53	2.59	2.01	2.59	20.44
"	Suffolk	Ipswich (Woolverstone Park)	.98	.75	.85	2.94	2.04	2.26	1.89	2.53	.87	3.19	2.05	2.66	23.01
"	"	Haverhill (Great Thurlow)	1.09	1.22	1.10	3.85	3.07	1.70	1.76	2.70	.61	2.55	2.14	3.00	24.79
"	"	Aldborough (Aldringham Ho)	1.04	1.09	1.05	1.86	2.53	2.88	2.39	1.50	.47	3.03	2.03	2.64	22.51
"	Norfolk	Geldeston [Beccles].....	1.57	1.13	1.26	2.67	2.74	2.19	1.06	1.28	.29	3.44	2.36	2.52	22.51
"	"	Swaffham .....	1.10	1.32	1.19	3.03	2.44	2.27	1.74	1.98	.57	3.07	2.58	2.53	23.82



## ENGLAND—(continued.)

Div.	County.	Station.	Jan.	Feb.	March.	April.	May.	June.	July.	August.	Sept.	Oct.	Nov.	Dec.	Total.
IV.	Norfolk	Aylsham (Woodgate).....	1.45	1.84	1.61	3.03	2.49	2.32	1.23	1.53	.59	3.48	2.93	2.59	25.09
V.	Wilts	Trowbridge (W. W. Biss)..	.76	1.65	.64	3.63	2.81	2.11	2.04	1.77	.59	6.30	2.67	4.64	29.61
"	"	Marlborough (Mildenhall)...	.55	1.38	.93	3.16	1.73	2.53	3.33	2.04	.77	7.15	3.06	4.85	31.48
"	Dorset	Beaminster Vicarage.....	1.67	1.78	.83	5.11	2.66	2.15	1.23	1.97	.66	8.27	3.85	5.24	35.42
"	"	Wimborne (Horton Vic.)..	.88	1.53	.48	3.80	2.02	2.03	.84	2.06	.44	10.54	2.71	3.74	31.07
"	"	Buckhorn Weston Rectory	.74	1.22	.54	3.36	1.54	2.33	1.55	2.66	.56	6.57	3.01	4.17	28.25
"	Devon	Buckfastleigh (Bossell Pk.)	2.98	3.86	1.93	6.99	6.39	4.08	1.91	2.41	1.84	8.26	6.53	9.44	56.62
"	"	Dartmoor (Lowery).....	2.92	2.25	1.76	8.51	4.41	4.56	2.79	3.72	1.72	9.40	4.73	7.51	54.28
"	"	Cullompton .....	1.52	1.79	.88	4.66	2.64	2.45	1.21	2.30	.65	6.78	2.89	5.57	33.34
"	"	Okehampton (Oaklands)..	2.69	2.06	1.43	5.88	4.20	4.24	2.13	2.89	1.02	7.81	3.37	7.70	46.38
"	"	South Molton (Castle Hillsch.)	2.47	1.99	1.53	5.05	3.42	2.50	1.60	1.66	2.55	8.22	5.48	5.03	40.34
"	Cornwall	Penzance (Morrab Garden)	1.97	2.29	1.21	4.84	2.99	2.49	1.43	1.42	2.50	6.53	6.03	4.68	35.82
"	"	St. Agnes .....	1.44	1.17	.99	4.57	2.57	2.49	1.43	1.42	2.50	6.53	6.03	4.68	35.82
"	"	Stratton (Poughill) .....	2.19	1.94	1.24	5.13	3.81	3.39	2.54	2.82	1.25	7.64	3.45	5.33	40.73
"	"	Crewkerne (Bincombe House)	1.21	1.76	.63	4.29	2.37	2.17	1.55	1.91	.48	7.21	3.23	5.07	31.88
"	Somerset	Holford (Woodlands House)..	1.62	1.10	.71	5.03	2.60	2.27	3.04	2.29	.56	6.67	2.76	5.38	34.03
"	"	Street .....	1.23	1.57	.70	4.90	2.48	2.09	2.03	3.02	.87	5.88	2.87	4.31	31.95
VI.	Gloucester	Clifton (Pembroke Road).	2.11	1.81	1.14	3.95	2.61	2.33	2.72	2.34	.62	5.33	3.11	6.28	35.25
"	"	Stroud (Upfield) .....	1.30	1.36	.69	3.50	1.77	2.73	4.33	2.12	.71	5.94	2.14	5.01	31.60
"	East	Fairford (Hatherop Castle)	1.31	1.25	1.06	3.10	2.64	2.21	3.69	2.36	.75	6.47	2.18	4.11	31.13
"	"	Mickleton .....	1.05	1.04	.69	2.17	3.05	2.03	2.11	1.71	.49	6.48	1.42	3.33	25.57
"	Hereford	Ross (The Graig) .....	2.18	.87	.55	3.11	2.26	2.13	2.14	2.66	.57	8.51	2.26	3.71	30.95
"	"	Leominster (Farm) .....	1.60	.90	.79	1.94	3.05	2.79	2.60	2.15	.38	8.52	2.76	2.77	30.25
"	Shropshire	Ch. Stretton (Wolstaston)	1.76	1.65	1.34	2.93	3.05	4.13	3.08	3.32	.72	7.07	3.12	3.83	36.00
"	"	Much Wenlock (Willey Pk)	1.46	1.67	1.04	2.52	2.65	2.81	2.12	2.58	.83	5.78	2.57	2.09	26.87
"	"	Shrewsbury (Highfield)...	1.06	.95	.78	1.54	2.76	3.83	2.64	2.68	.70	5.56	2.28	2.09	26.87
"	"	Oswestry (The Mount Res.)	1.57	1.87	1.54	2.02	2.88	4.43	2.72	2.62	.97	6.83	4.22	3.87	35.54
"	"	Penkridge (Rodbaston)...	1.45	1.53	1.29	2.01	4.30	2.63	3.82	2.48	.97	5.26	2.02	2.58	30.34
"	Stafford	Burton (Shobnall) .....	.97	1.66	1.29	1.37	3.64	2.75	3.28	3.30	.99	4.74	2.16	2.98	29.13
"	"	Market Drayton (Old Springs)	1.53	1.38	1.35	2.06	3.13	4.13	3.75	2.81	.84	4.45	2.46	2.19	30.08
"	Worcester	Worcester (Belmont Rd.)	.89	.65	.64	2.48	2.59	2.04	2.71	2.11	.37	6.28	1.89	3.42	26.07
"	"	Stourbridge (Piedmore)...	1.05	1.10	1.18	2.30	3.12	2.51	1.91	2.97	.70	6.21	2.55	2.96	26.57
"	"	Leamington (Cubbington)	.88	1.13	.72	1.75	4.58	2.04	2.61	3.10	.30	4.13	2.02	3.16	26.42
"	Warwick	Bedworth Cemetery .....	.81	1.06	1.10	1.70	4.04	2.84	3.45	2.75	.80	4.91	2.19	3.28	28.93
"	"	Loughboro' (Nan Pantan Res)	.90	1.09	1.04	1.88	3.46	2.44	2.94	2.12	1.06	4.36	2.13	3.19	26.61
VII.	Leicester	Belvoir Castle.....	.97	1.09	1.32	2.55	3.72	1.87	2.48	2.57	.80	3.89	1.96	2.61	25.83

# ENGLAND—(continued.)

Div.	County.	Station.	Jan.	Feb.	Mar.	April.	May.	June.	July.	August.	Sept.	Oct.	Nov.	Dec.	Total.
VII.	Rutland .....	Market Overton .....	.87	1.20	1.22	2.68	4.14	2.35	2.72	2.44	1.86	5.60	2.33	3.22	30.63
"	Lincoln, South...	Sleaford (Rauceby Hall)...	.99	1.32	1.64	2.30	3.97	2.53	2.33	2.26	.81	4.15	2.08	2.52	26.90
"	"	Market Rasen .....	1.11	1.83	1.31	1.76	2.94	3.01	1.88	2.41	.51	4.47	2.13	2.16	25.52
"	"	Burton-on-Stather Vic. ....	1.01	1.65	1.33	2.35	3.63	3.31	1.72	2.08	.78	4.69	2.15	2.88	27.58
"	Notts.....	Ollerton (Boughton W. W. ....	.55	1.61	1.19	1.93	2.71	2.30	1.21	2.11	.59	5.12	2.31	2.57	24.20
VIII.	Derby .....	Darley Hall .....	1.12	2.60	2.00	2.24	3.91	4.51	2.02	2.93	.63	6.43	2.93	2.87	34.19
"	Cheshire.....	Northwich (Highfield).....	1.16	1.84	2.26	1.27	2.83	4.47	4.53	3.60	.56	3.74	2.22	2.20	30.68
"	Lancashire, South	Manchester (Withington).....	1.33	1.71	2.61	1.11	3.86	4.85	3.05	3.36	.73	3.07	2.33	2.57	30.58
"	"	Southport (Hesketh Park).....	1.26	1.67	2.69	1.60	3.24	5.93	1.78	3.71	.76	3.78	2.70	3.41	32.53
"	"	Burnley (Swinden, Lower).....	2.23	2.75	3.48	2.44	3.93	6.16	2.51	4.37	.88	5.71	2.30	4.80	41.56
"	"	St Michael's-on-Wyre Vic. ....	1.86	1.84	3.69	1.74	4.41	8.55	2.97	4.94	.85	3.74	3.67	4.09	42.35
"	"	Cartmel (Pit Farm).....	2.55	2.56	4.72	2.40	5.42	8.58	3.58	5.15	.76	6.71	4.70	7.25	54.38
IX.	"	Rotherham (Moorgate).....	1.40	1.57	1.31	1.48	3.66	3.18	1.83	1.63	.39	4.97	2.30	1.64	25.36
"	York, W. R., S.	Meltham (Harewood Ldge).....	2.27	3.74	3.94	2.59	5.21	5.67	2.22	2.92	.81	7.66	3.74	4.93	45.70
"	"	South Milford Rectory .....	.93	1.38	1.60	1.55	3.64	2.80	2.32	2.04	.93	5.57	3.22	2.74	28.72
"	"	Malham Tarn .....	3.79	3.18	5.88	4.14	5.51	8.51	4.02	5.58	1.25	6.09	4.27	7.58	59.80
"	"	Ripon (Mickley) .....	1.23	2.13	1.88	1.70	4.47	3.66	1.92	1.54	.53	4.72	2.64	3.65	30.07
"	"	Wharfedale (Oughtershaw Hall).....	4.05	5.14	7.72	4.57	6.01	9.45	4.42	5.67	1.26	7.72	5.32	8.51	69.84
"	"	Pattrington .....	.72	1.71	1.02	1.42	2.93	2.08	.80	1.88	.42	3.84	1.87	1.86	20.55
"	"	Pocklington (Warter)....	1.27	1.46	1.42	1.70	3.16	3.40	1.34	2.48	1.02	4.47	2.31	3.72	27.75
"	"	Lowthorpe (The Elms) ...	1.25	1.56	1.16	1.80	2.83	2.27	.94	2.24	.69	4.76	2.20	3.56	25.26
"	"	Thirsk (Mount St. John)....	.63	1.50	.93	2.29	3.06	3.42	1.61	2.08	.75	4.24	2.54	2.97	26.02
"	"	Whitby (Mulgrave Castle).....	.92	1.29	.72	2.10	4.63	2.32	1.57	2.58	.56	5.86	2.43	3.62	28.60
"	"	Middlesbrough (Ormesby).....	.71	1.16	.84	1.58	3.71	3.58	1.63	2.51	.49	4.44	2.32	3.38	26.35
"	"	Darlington (Hurworth Grange).....	.64	1.29	.92	1.90	3.89	3.32	2.24	1.45	.55	4.20	2.56	2.90	25.86
X.	"	Hartlepool (Hurworth Burn).....	.79	1.57	.83	1.89	3.17	3.74	1.50	2.24	.49	5.45	2.66	3.38	27.71
"	"	Corbridge (Howden Dene).....	.58	1.24	1.54	2.62	3.59	2.98	1.96	2.22	.62	5.79	1.29	2.97	27.40
"	"	Morpeth (Bothalhaugh)....	.70	1.26	1.01	1.48	3.92	3.03	1.21	2.61	.43	5.10	1.78	3.16	25.69
"	"	Alwinton (Biddleston) ...	.85	2.31	1.96	3.76	3.73	4.58	1.91	2.56	.42	7.20	2.59	3.49	35.36
"	"	Howick Hall .....	1.65	1.21	1.28	1.66	3.46	4.49	1.52	2.23	.46	5.03	2.28	3.01	28.28
"	"	Borrowdale (Seathwaite)....	6.01	8.69	14.10	7.16	10.18	17.04	4.28	13.65	2.03	15.11	11.43	19.13	128.81
"	"	Brampton (Denton House).....	1.12	1.15	2.84	2.58	3.23	4.32	2.88	3.68	.26	5.16	2.05	3.74	33.01
"	"	Kendal (Holmcroft) .....	2.46	3.58	5.41	2.38	5.00	9.27	4.47	6.24	.89	6.22	4.65	8.10	58.67
"	"	Appleby (Castle Bank) .....	1.04	2.50	2.89	2.18	4.00	5.04	2.48	2.53	.46	4.03	2.31	5.51	34.97
"	"	Lowther Castle .....	.82	2.38	2.62	.91	3.99	3.32	1.23	1.79	.31	4.68	2.65	6.23	30.93

# MONMOUTH, WALES AND THE ISLANDS.

Div.	County.	Station.	Jan.	Feb.	March.	April.	May.	June.	July.	August.	Sept.	Oct.	Nov.	Dec.	Total.
XI.	Monmouth	Chepstow (PiercefieldPk.)	2.25	1.88	1.27	2.53	2.83	2.87	2.13	2.46	.77	6.53	3.21	6.39	35.12
"	"	Abergavenny (Larchfield)	1.85	1.35	1.05	3.37	3.59	2.42	3.00	2.06	.61	8.00	2.80	5.24	35.34
"	Glamorgan	Cardiff (Roath Park)	2.96	1.75	1.92	3.95	3.07	4.53	2.91	3.40	.99	6.93	3.36	7.33	43.10
"	"	Neath (Fairy Land)	2.91	2.62	1.90	4.26	3.21	5.60	2.49	6.60	1.18	7.14	4.11	5.51	47.53
"	Cardarthen	Llanelly(OldMarketYard)	2.47	2.55	1.75	3.68	2.80	4.35	2.84	4.53	1.15	9.30	3.90	5.53	44.85
"	"	Llanwrda (Dolaucothy)	3.93	3.65	2.80	4.27	5.48	6.27	4.63	4.63	1.54	9.41	4.67	5.98	57.26
"	"	St. David's	1.24	2.26	1.10	4.24	3.34	3.00	3.33	3.46	1.45	7.83	4.08	3.21	38.54
"	Pembroke	Strata Florida (Hafod)	5.45	3.27	3.29	4.28	4.12	7.04	4.55	6.68	2.00	8.10	4.72	7.29	60.79
"	Cardigan	Aberystwyth (N. Parade)	2.88	1.70	1.35	2.31	2.97	4.50	2.89	3.62	.87	6.20	2.74	3.12	35.15
"	"	Brecon (New Inn)	3.83	3.38	2.94	5.34	4.11	6.71	5.83	2.59	.88	6.12	4.02	9.79	55.54
"	"	Llysdinam (Newbridge)	2.84	2.28	2.00	2.57	3.56	4.10	4.70	4.16	.72	6.20	3.50	5.31	41.94
"	"	Newtown (Dolfor)	1.55	1.57	.77	2.74	3.41	3.42	2.41	3.04	.74	8.25	3.03	4.79	35.72
"	Montgomery	Bodfari (Nantlys)	1.09	1.73	1.60	1.37	2.39	2.85	1.99	2.34	.72	6.83	1.95	1.65	26.51
"	Flint	Gresford (Trewythen)	1.17	1.50	1.56	1.26	2.72	3.35	2.90	2.35	1.09	5.45	3.25	2.06	28.66
"	Denbigh	Dolgelly (Bryntirion)	5.26	2.95	4.21	3.27	3.82	6.90	3.42	6.57	1.21	8.17	4.52	5.10	55.40
"	Merioneth	Llanderfel (Pale)	3.15	3.19	2.52	3.35	3.39	4.24	2.71	3.92	.43	9.41	2.97	5.81	45.09
"	"	Blaenau Festiniog(Oakley Qrs.)	6.80	5.25	8.27	5.02	5.58	16.97	5.58	11.80	1.65	11.32	6.62	10.83	95.69
"	"	Criccieth (Talarvor)	2.40	1.95	2.17	2.07	2.30	4.71	1.84	3.13	.53	5.17	2.74	3.33	32.34
"	Carnarvon	Llanerchymedd	1.40	1.55	2.76	2.28	3.04	5.55	1.40	4.41	.57	7.79	4.35	4.33	39.43
"	Anglesea	Douglas (Woodville)	1.79	2.59	3.39	2.71	3.54	4.71	1.81	4.22	1.00	7.10	3.79	5.35	42.00
England and Wales. Mean of 122 stations.....			1.58	1.81	1.70	3.01	3.24	3.57	2.38	2.85	.79	5.84	2.94	4.23	33.94

## SCOTLAND.

XII.	Wigtown	Garliestown (Galloway House)	2.25	3.05	3.62	2.77	3.37	5.57	1.62	4.59	1.32	8.32	4.09	5.48	46.05
"	Kirkcudbright	Dalbeattie (LittleRichorn)	1.42	2.89	3.56	3.23	3.96	6.66	2.47	5.34	1.53	8.46	3.75	5.82	49.09
"	"	Dalry (Glendarroch)	3.29	4.46	5.58	3.46	5.47	5.03	2.79	6.20	1.05	9.58	5.08	6.63	58.62
"	Dumfries	Largholm (Ewes School)..	2.62	3.28	5.67	3.04	5.47	7.35	3.19	6.53	.92	6.94	3.50	7.43	55.94
"	"	Moffat (Ericstane)	2.83	4.25	5.24	3.24	5.29	5.03	3.06	5.64	.75	8.99	2.95	5.86	53.13
"	"	Hawick (Wolfelee)	.66	1.42	2.39	2.92	4.71	4.29	3.10	2.40	.49	6.45	2.66	4.37	35.86
"	"	" (Branxholme)....	.93	1.98	2.66	2.30	4.16	4.30	2.68	3.76	.55	5.08	2.26	4.39	35.05
XIII.	Selkirk	Selkirk (The Hangingshaw)...	.42	2.30	2.56	2.63	3.91	2.79	2.35	4.51	.93	6.42	2.42	4.65	35.39
"	Peebles	Eddlestone (Portmore)	2.04	1.67	2.28	2.10	2.87	3.64	3.17	4.23	1.54	9.60	2.37	3.67	39.18
"	Berwick	Marchmont House	1.30	1.29	1.92	1.98	4.18	3.88	2.42	2.95	1.00	6.43	2.37	3.62	33.34

# SCOTLAND—(continued.)

Div.	County.	Station.	Jan.	Feb.	March.	April.	May.	June.	July.	August.	Sept.	Oct.	Nov.	Dec.	Total.
XIII.	Haddington .....	Whittinghame Gardens.	·64	1·24	1·50	1·94	3·25	3·08	2·83	2·99	1·62	9·08	2·28	3·56	34·01
"	Midlothian .....	Edinburgh (Royal Obs.)...	·84	1·00	1·83	1·31	2·75	2·41	2·49	3·52	1·30	7·90	1·06	3·77	30·18
XIV.	Lanark .....	Cleghorn .....	2·46	2·58	3·29	1·73	3·45	4·41	3·40	4·14	1·03	7·79	1·98	4·77	41·03
"	" .....	Hamilton (Water Works)	2·45	3·15	3·90	1·70	4·90	3·15	2·85	4·20	·85	6·90	2·10	5·20	41·35
"	Ayr .....	Colmonell .....	2·50	2·60	3·40	3·19	3·71	5·12	2·72	4·88	1·22	6·91	5·86	5·17	47·28
"	" .....	Maybole (Culzean Gardens)	2·20	2·50	3·75	2·45	3·75	4·05	2·50	3·30	·85	6·40	3·95	4·30	40·00
"	" .....	Kilmarnock (North Craig)	3·00	3·70	4·80	2·70	3·60	4·10	2·80	5·40	1·60	7·00	3·90	4·80	47·80
XV.	Dumbarton .....	Helensburgh (Water Wks)	3·50	3·41	5·14	2·21	4·21	4·88	2·80	6·03	1·91	4·99	3·39	6·16	48·63
"	Stirling .....	Falkirk (Cauldham) .....	2·26	2·81	3·21	1·61	3·90	4·45	1·96	4·45	1·36	6·11	1·63	5·55	39·30
"	" .....	Bucklyvie (The Manse)...	4·51	5·22	5·20	3·40	4·72	4·88	3·00	6·39	2·40	6·68	3·48	7·65	57·53
"	Bute .....	Rothesay (Crichton Road)	3·93	3·79	6·18	3·51	5·26	4·83	3·46	6·21	2·57	6·18	5·26	7·40	58·58
"	Argyll, Mainland	Kintyre (Campbeltown, Witchburn)	2·55	2·75	4·81	2·81	5·91	4·34	3·00	5·55	1·65	6·21	4·99	5·57	50·14
"	" .....	Lochgilphead (Poltalloch)	4·68	5·12	5·91	3·26	4·48	5·22	3·81	7·34	2·59	5·33	5·15	6·86	59·75
"	" .....	Inveraray (Newtown).....	6·65	7·87	7·81	4·87	4·96	6·46	3·56	9·97	2·88	4·15	6·95	8·72	74·85
"	" .....	Morvern (Drimnin).....	5·17	5·39	4·92	3·60	3·48	4·81	3·49	8·98	2·03	3·37	7·20	7·91	60·35
"	" .....	Ballachulish House.....	7·52	9·73	8·09	4·39	7·56	7·33	3·70	9·84	3·15	4·63	9·47	11·29	86·70
"	" .....	Strontian (Laudale) .....	7·61	9·13	6·26	5·22	5·85	6·09	2·78	10·70	2·19	3·97	8·47	8·38	76·65
"	Insular ...	Islay (Ardbeg).....	3·91	4·07	5·84	2·66	4·78	5·56	2·90	5·61	1·83	4·49	3·97	5·46	51·08
XVI.	Clackmannan ...	Dollar (Academy).....	2·76	3·67	4·22	1·60	4·66	6·27	3·19	5·57	2·02	7·10	2·56	6·58	50·20
"	Kinross .....	Loch Leven Sluice .....	2·44	2·40	3·18	1·51	3·69	5·14	2·50	4·16	1·33	6·77	2·67	4·64	40·43
"	Fife .....	Colinsburgh (Balcarres) ...	1·03	1·21	2·38	1·60	4·06	3·89	2·50	3·55	1·29	7·06	1·77	3·76	34·10
"	Perth.....	Balquhidder (Stronvar) ..	4·09	7·68	6·05	4·30	5·01	6·64	2·34	8·25	1·91	5·67	5·53	9·06	66·53
"	" .....	Coupar Angus .....	1·16	1·26	1·73	1·96	3·34	3·75	2·36	3·78	·76	4·80	1·85	3·83	30·58
"	" .....	Blair Atholl .....	2·46	3·47	2·20	3·31	2·90	3·25	1·66	4·06	1·13	2·75	2·15	3·26	32·60
"	Forfar .....	Arbroath (Dishland Hill).	·89	1·16	1·32	1·93	5·36	3·66	2·17	2·83	·98	4·64	1·83	2·85	29·62
"	" .....	Kirriemuir (Balnakeilly)..	2·50	2·40	1·40	3·00	4·00	4·80	2·10	3·90	1·00	4·30	2·10	3·80	35·30
XVII.	Kincardine .....	Fettercairn (The Burn) ...	1·10	2·07	1·74	2·73	7·30	4·47	2·17	3·33	1·18	3·91	2·27	4·19	36·46
"	Aberdeen .....	Alford (Lynturk Manse)...	1·50	1·61	1·24	2·33	4·55	3·96	2·30	2·71	1·16	5·58	2·36	3·63	32·93
"	" .....	New Deer School House..	1·97	1·71	1·37	2·08	2·16	4·85	2·01	3·46	1·18	6·11	2·42	2·73	32·05
"	Banff .....	Banff (Earl Hill) .....	1·92	1·70	1·21	1·24	1·73	4·28	2·08	3·24	·95	3·91	2·16	1·84	26·26
"	Moray .....	Grantown .....	2·08	1·71	1·87	2·57	2·56	5·20	2·77	3·44	·93	3·08	1·78	1·19	29·18
"	" .....	Gordon Castle .....	1·31	1·42	1·21	1·47	2·24	5·18	2·74	3·15	·59	5·06	1·65	1·70	27·72
"	Nairn.....	Nairn (Achareidh) .....	1·31	1·38	1·08	1·06	3·03	4·74	2·33	3·12	·69	4·31	2·05	1·41	26·51
XVIII.	Inverness .....	Glenquoich .....	14·40	13·43	14·48	5·09	7·20	11·12	5·16	15·22	5·03	5·33	12·66	14·42	123·54

SCOTLAND—(continued.)

Div.	County.	Station.	Jan.	Feb.	March.	April.	May.	June.	July.	August.	Sept.	Oct.	Nov.	Dec.	Total.
XVIII.	Inverness	Loch Lochy (Invergloyle)	8.85	7.46	6.25	2.64	3.83	5.59	2.49	5.70	2.45	2.96	5.08	6.53	59.83
"	"	Alvey Manse	2.65	2.53	2.03	1.67	1.69	3.27	1.72	3.06	.86	3.52	1.98	1.84	26.82
"	"	Loch Ness (Garthbeg)	3.01	4.20	3.24	1.50	2.12	3.93	1.69	3.51	1.19	3.07	4.06	4.32	35.84
"	Ross & Cromarty	Applecross Gardens	5.34	7.57	6.35	4.35	3.07	5.62	4.57	5.08	1.72	3.92	4.60	6.38	58.57
"	"	Loch Torridon (Bendamph)	9.48	11.83	9.47	5.45	4.52	9.41	5.11	9.59	4.02	3.37	9.37	9.30	90.92
"	"	Ullapool (Inverpolly Ldg.)	3.35	6.72	4.27	2.79	1.94	5.44	2.90	4.83	1.72	1.91	5.20	4.50	45.57
"	"	Alness (Ardross Castle)	4.16	3.42	2.78	2.35	4.20	5.38	1.33	3.45	1.02	3.12	3.40	3.47	38.76
XIX.	Sutherland	Invershin	4.22	2.66	2.11	2.20	3.79	3.11	1.83	3.09	.88	1.97	2.57	3.58	31.51
"	"	Dunrobin Castle	4.12	3.16	1.99	2.20	2.18	4.89	1.57	3.70	1.04	2.01	2.50	2.81	32.17
"	"	Bettyhill	3.72	2.12	2.20	2.03	2.05	3.56	1.29	4.93	.81	2.09	1.96	2.40	29.16
"	"	Wick	3.57	2.89	2.09	2.22	1.44	4.12	1.32	3.61	1.13	3.27	1.83	2.13	29.62
Scotland. Mean of 55 stations.....			3.26	3.74	3.83	2.68	3.97	4.90	2.69	5.09	1.49	5.38	3.69	5.10	45.82

IRELAND.

XX.	Cork	Castletownshend (Glen Barrabane)	1.91	2.13	1.72	5.45	2.88	3.99	1.95	4.04	1.75	5.31	2.18	7.07	40.38
"	"	Cork (The Palace)	1.11	1.89	1.06	2.86	3.65	3.34	2.27	2.76	2.24	5.01	4.23	8.09	38.51
"	"	Mallow (Summer Hill)	1.47	1.45	1.33	3.02	3.75	3.67	1.78	2.75	1.70	6.18	3.63	6.69	37.42
"	Kerry	Darrynane Abbey	2.92	4.04	2.88	4.31	4.00	4.64	2.36	5.72	2.20	6.74	3.59	9.03	52.43
"	"	Kenmare (Derreen)	2.45	4.68	3.47	5.87	5.41	5.57	2.39	6.01	2.06	6.83	4.67	12.74	62.15
"	Waterford	Waterford (Brook Lodge)	.79	1.87	1.09	3.60	3.87	4.36	3.04	3.01	1.38	6.12	5.38	5.38	39.89
"	Tipperary	Clonnel (Bruce Villa)	.69	1.67	1.21	2.97	3.06	3.52	2.30	2.25	1.16	6.22	3.91	5.70	34.66
"	"	Ennagh (Castle Lough)	1.54	2.28	3.05	2.65	3.32	3.43	3.59	3.42	1.87	5.24	4.13	4.74	39.26
"	"	Ballingarry (Gurteen)	1.19	1.79	2.38	2.01	2.58	3.19	3.27	3.40	1.26	4.87	3.16	3.65	32.75
"	Limerick	Limerick (Roxborough)	1.98	2.05	2.08	3.23	3.46	3.56	2.27	3.50	1.48	5.52	4.05	4.43	37.61
"	Clare	Carrigaholt Castle	1.74	3.04	1.73	2.60	3.17	3.26	2.35	3.43	1.82	5.79	3.89	6.41	39.23
"	"	Miltown Malbay	2.25	3.99	3.34	2.89	3.14	4.02	3.38	5.64	3.16	6.20	4.59	5.07	47.67
XXI.	Wexford	Enniscorthy (Ballyhyland)	.90	1.83	1.06	3.59	4.81	4.96	3.40	2.63	1.25	5.69	4.99	5.21	40.32
"	"	Gorey (Courtown House)	.42	1.42	.83	2.39	4.18	4.04	3.23	2.42	1.39	6.24	3.75	2.73	33.04
"	Kilkenny	Kilkenny (Lavistown Ho)	.79	1.01	1.05	2.42	3.48	3.07	2.22	2.54	1.19	4.84	3.49	3.35	29.45
"	Wicklow	Laragh (Glendalough)	2.05	3.03	3.18	5.14	6.54	7.03	2.82	4.68	1.83	10.64	4.65	7.22	58.81
"	"	Bray (Fassaroe)	.68	1.89	2.29	3.03	5.18	3.19	2.32	2.65	1.02	8.38	3.32	3.89	37.84
"	Queen's County	Abbey Leix (Blandsfort)	.96	1.85	2.34	3.38	3.51	3.63	4.19	3.11	1.27	5.89	3.83	4.07	38.03
"	Kildare	Monasterevan (Moore Abbey)	.98	1.78	2.30	3.52	3.33	3.49	2.16	3.11	1.45	4.22	3.44	3.08	32.86
"	"	Straffan House	.83	1.79	2.66	3.29	2.95	3.42	2.05	2.76	.69	5.23	2.61	2.76	31.04

IRELAND—(continued.)

Div.	County.	Station.	Jan.	Feb.	March.	April.	May.	June.	July.	August.	Sept.	Oct.	Nov.	Dec.	Total.
XXI.	Dublin	Glassevin (Botanic Gdns.)	1.09	1.29	2.57	2.82	3.21	3.20	1.44	3.16	.52	5.36	3.03	2.24	29.46
	Meath	Athboy	1.39	2.34	2.94	2.30	3.90	3.87	2.50	2.85	1.38	5.29	2.27	3.37	34.10
	"	Moynalty (Westland)	1.59	2.57	2.95	2.49	4.41	4.72	2.28	3.12	1.43	5.74	2.68	3.92	37.70
	Westmeath	Athlone (Twyford)	1.07	2.38	2.75	2.71	2.78	3.83	1.83	3.33	1.63	3.62	2.34	3.39	32.18
	"	Mullingar (Belvedere)	1.26	2.80	3.26	2.01	3.53	3.74	2.16	3.15	.86	4.86	2.59	3.28	33.31
XXII.	Louth	Ardee (Lissrenny)	1.30	2.21	2.82	2.54	3.83	3.96	1.64	2.60	1.02	4.34	2.75	2.85	31.82
	"	Greenore	2.00	1.96	2.89	2.28	4.87	5.01	1.55	3.01	1.11	4.34	3.01	3.01	34.34
	Galway	Ballinasloe	3.83	2.60	2.93	2.31	3.71	4.21	2.89	3.03	1.42	4.34	3.61	4.22	37.24
	"	Clifden (Kylemore House)	2.10	4.46	5.46	6.26	4.69	6.33	4.16	8.29	3.29	11.26	5.47	11.01	74.51
	"	Tuam (Gardenfield)	2.42	2.88	4.70	2.70	4.02	5.12	2.20	4.15	1.73	4.18	3.14	5.10	42.02
[ 16 ]	Mayo	Ballinrobe (Cranmore)	2.15	3.36	4.87	2.96	4.70	4.40	3.11	3.62	2.69	4.53	3.81	6.54	47.01
	"	Doo Castle [Tobercurry]	3.05	2.73	4.75	2.74	4.76	4.47	2.19	3.51	1.72	4.52	3.09	4.29	40.92
	"	Blacksod Point	3.30	4.33	5.23	3.00	4.98	4.84	3.23	5.74	2.12	7.22	4.57	7.06	55.37
	"	Crossmolina (Enniscoe)	3.30	3.93	4.84	3.39	5.07	5.60	2.43	3.77	1.81	6.60	5.13	7.94	53.81
	Sligo	Collooney (Markree Obs.)	3.07	3.28	4.82	3.12	4.24	5.50	2.88	4.02	1.76	5.01	2.89	4.59	45.18
XXIII.	Cavan	Stradone House	1.98	2.48	3.52	2.87	2.80	4.90	2.28	2.84	1.92	4.07	2.37	3.86	35.89
	"	Ballyconnell House	2.68	3.14	4.38	2.45	3.46	5.63	1.52	3.75	1.57	3.91	3.12	4.11	39.72
	Fermanagh	Enniskillen (Portora)	2.68	3.07	4.43	2.13	3.55	5.91	2.33	3.80	1.19	4.07	2.33	3.48	38.37
	"	Belleek	2.89	2.88	4.34	3.05	4.24	5.10	2.19	3.74	2.00	4.51	3.47	4.38	42.79
	"	Monaghan (Rowantree Ho)	1.15	1.75	3.05	2.24	2.53	3.91	1.46	2.80	1.08	3.65	2.29	2.26	28.17
	Armagh	Armagh Observatory	1.14	1.83	2.86	2.33	3.73	4.52	2.22	2.74	.94	4.18	2.62	2.46	31.57
	Down	Seaforde	1.39	2.04	3.02	2.81	5.73	5.63	2.23	3.36	1.41	5.55	3.05	3.71	39.93
	"	Donaghadee	1.83	1.71	3.18	2.59	4.94	3.71	2.53	2.70	.91	3.20	2.99	2.91	33.20
	"	Belfast (Springfield)	2.54	2.35	4.89	2.34	4.09	5.73	2.92	3.95	1.37	4.28	2.93	4.28	41.67
	Antrim	Ballymena (Harryville)	2.68	2.93	4.30	2.64	4.36	6.06	4.05	4.18	1.59	4.43	3.55	3.89	44.66
	"	Bushmills (Dundarave)	2.97	2.64	4.54	2.06	3.97	4.97	3.24	5.28	1.55	4.26	3.67	3.91	43.06
	"	Garvagh (Moneydig)	2.75	2.54	5.02	2.76	5.31	5.13	3.21	3.91	1.09	3.41	2.77	3.65	41.55
	Londonderry	Londonderry (Craggan Res.)	3.47	4.11	5.24	3.76	4.01	5.31	3.84	5.07	1.13	3.64	3.28	4.30	47.16
	"	Killybegs (White House)	5.76	5.66	6.61	3.95	4.84	6.10	4.06	7.48	2.55	6.49	3.74	7.59	64.83
	Donegal	Lough Eske Castle	6.18	5.39	6.62	4.89	4.54	6.27	3.62	6.65	2.57	6.00	4.99	6.56	64.28
	"	Convoy	3.64	4.49	5.70	3.28	5.06	4.69	2.47	5.35	2.03	5.83	4.07	5.85	51.96
	"	Buncrana (Rockfort)	2.12	2.89	5.07	2.62	4.02	4.82	3.48	5.19	1.31	3.47	3.40	4.13	42.52
	"	Horn Head	2.83	4.53	3.91	2.49	4.52	4.61	2.76	5.27	1.43	5.24	4.41	5.22	47.22
	"														
	"														
Ireland. Mean of 53 stations			2.04	2.74	3.39	3.08	4.05	4.55	2.64	3.87	1.59	5.32	3.53	4.92	41.72
BRITISH ISLES. Mean of 230 stations			2.09	2.49	2.60	2.94	3.60	4.11	2.52	3.62	1.14	5.61	3.25	4.60	38.57

## ON THE RELATION OF THE TOTAL FALL OF RAIN IN 1907 TO THE AVERAGE.

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THIS discussion sums up the result of the year's records in the most general way possible, and it is surprising when we consider the short duration of most rainfall records, to find how many are available to yield an average of 30 years for comparison. We have already seen in dealing with monthly rainfall that the mean annual fall at 71 equally distributed stations was 98 per cent. of the average for England and Wales, 103 per cent. of the average for Scotland, and 100 per cent. of the average for Ireland and for the British Isles as a whole. The number of stations used was not very great, and in Scotland and Ireland the distribution is not perfect, so that it would not be very wonderful to find that a much larger number situated nearer together, and certainly not worse in distribution, should yield a slightly different result. The Table concluding this section gives the rainfall as compared with the average at 177 stations, and, as the accompanying Abstract shows, it amply confirms the former result. England, as before, shows a deficiency of 2 per cent., Ireland and the British Isles come out as exactly the average, and Scotland shows an excess of 5 per cent. This is 2 per cent. more than the figure as determined by the smaller number of stations; but as the changes of rainfall in Scotland were great, and abrupt, there is no doubt that the later figure is the more accurate. One other form of calculation is possible, and that is given in the "rough comparison" on p. [171], in which the actual mean rainfall of the stations in each country quoted in the Table of 177 is compared with the general rainfall, calculated from maps compiled from a much larger number of data. In this case England and Wales come out with a deficiency of 1 per cent., Scotland with an excess of 1 per cent., Ireland with a deficiency of 1 per cent., and the British Isles, as a whole, with a deficiency of 1 per cent., exactly as in 1906. In the case of Scotland it is quite possible that the average arrived at is slightly below the truth, but even so the close accordance of the results is most satisfactory, and as there are good reasons for giving any preference to

the special Table compiled for this Section, we unhesitatingly accept the figures of the Abstract given below, and, we believe, for the first time in the annals of British Rainfall, we deal with a year during which the total volume of rain which fell upon the British Isles was neither above nor below the average.

ABSTRACT.

COUNTRIES.	No. of Records utilized.	Average. 10 years 1890-99.	Average. 30 years 1870-99.	1907.	Diff. from Average 1870-99.	
					Amount.	Per cent.
		in.	in.	in.	in.	
England and Wales...	94	32·42	34·44	33·61	·83 —	2
Scotland .....	47	45·35	45·24	47·33	2·09 +	5
Ireland .....	36	40·60	41·44	41·55	·11 +	0
British Isles .....	177	37·52	38·73	38·87	·14 +	0

Although to any individual inhabitant the more important question is how the rainfall of his immediate neighbourhood stood with regard to other years, there is a good deal of interest in considering this question of the total fall.

As we have pointed out in several successive volumes there has been a definite periodical relationship in the succession of wet and and dry years since 1891, a wet year having been followed by two dry ones, without a single break, until 1906. The percentage figures of difference from the average for the British Isles in the last column of the rough comparison may be quoted :—

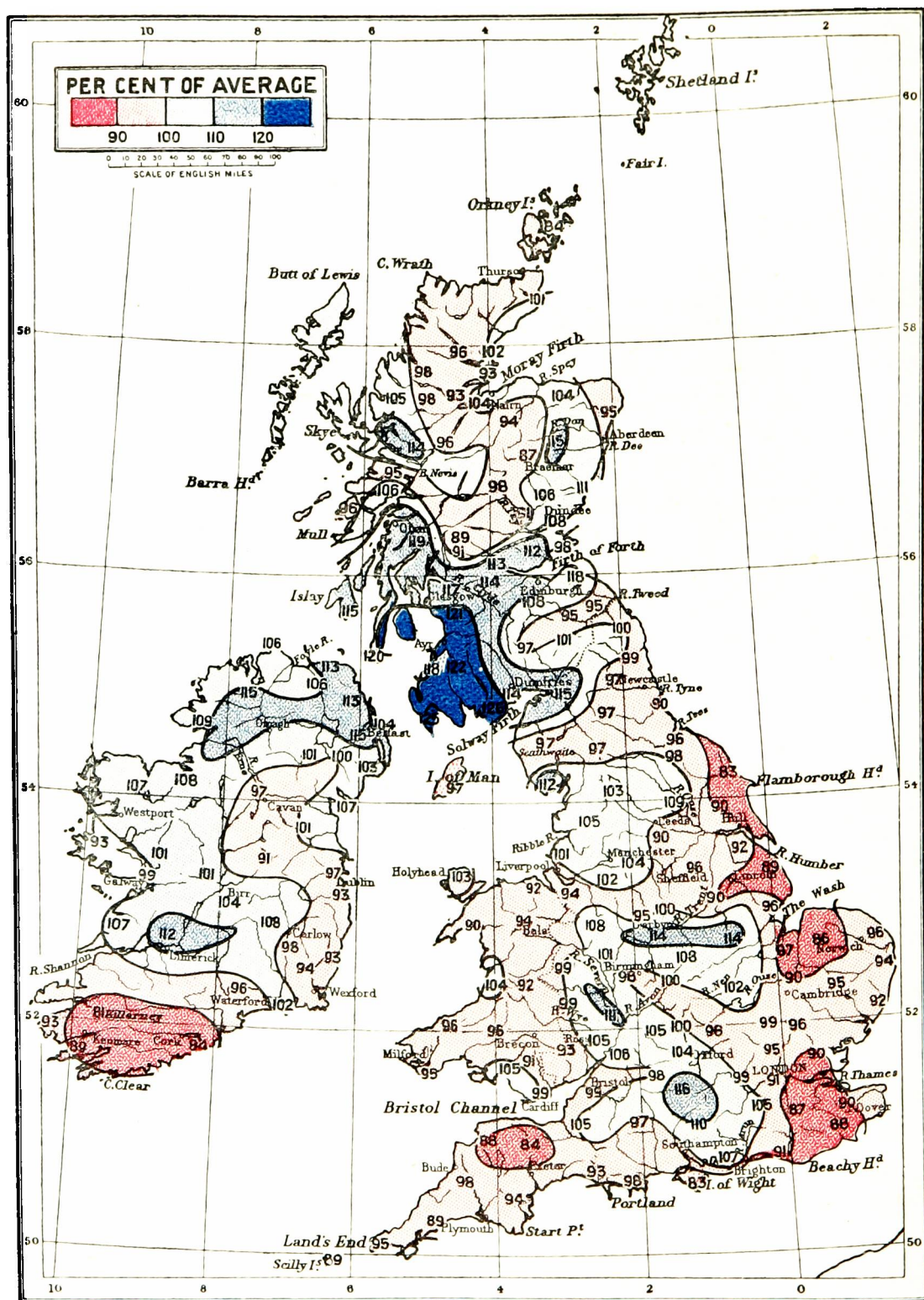
1891.	1892.	1893.	1894.	1895.	1896.	1897.	1898.	1899.	1900.	1901.	1902.	1903.	1904.	1905.
+5	—5	—12	+5	—5	—6	+3	—2	—5	+8	—11	—17	+26	—9	—14

We also pointed out annually that as this relationship did not hold good before 1891, there was every probability that sooner or later it would cease to hold good again, and that remarkable as the series of recurrences was it would not be safe to trust to any empirical rule founded on it as a basis for prediction. If the rule had held 1906 should have been a wet year, and 1907 a dry year, but we find instead that the two years came out as nearly as possible the average. There does not seem to have been any other case of two consecutive years having had the same total rainfall, and none of any year before having had neither less nor more than the average. It has been suggested that a cycle of three years and a fraction would





RELATION OF RAINFALL OF 1907 TO THE AVERAGE OF 1870-1899.



for a time give recurrences similar to those observed, and then a different order after a period of transition. No better period of transition could be imagined than two average years, and we look forward with interest to the future. Meanwhile we note that the 15 years during which the recurrence was observed had on the whole a rainfall 8 per cent. below the average, in other words there was a total shortage of more than one year's rainfall. It may be that a time of increasing rainfall has now set in. There is, however, the possibility that different parts of the British Isles may experience different recurrences of rainfall, and this is one of the many subjects on which we hope to be able to throw light when the large-scale rainfall maps for forty years have been completed, and a trustworthy average map compiled from them.

Though an average year for the country as a whole, and with a very large area enjoying a rainfall within ten per cent of the average, 1907 was not without a considerable range of rain from place to place, but the extremes were not so evenly balanced as in 1906. The coloured map inserted as a plate shows the area with more than its average rainfall in blue, and that with less than its average rainfall in red, the shades deepening as the divergence from the average increases.

Looked at in its most generalized form, this map shows a belt of low, and at points very low, rainfall round the south coast of Ireland and the south and east coasts of England, and in contrast to this a centre of very high rainfall in the southwest of Scotland, from which four wet strips radiated northwestward to Skye, northeastward to Aberdeenshire, southwestward through the north and centre of Ireland, and southeastward through the centre of England. The general result was that the year was wet in the parts of the country farthest from the sea, and dry in a much broader belt round the coasts, though for this to hold good in its entirety we must view the Outer Hebrides as forming the west coast of Scotland. We use the words wet and dry to express the rainfall with regard to the average at the place in question, thus a rainfall of 50 inches at Seathwaite would make that place drier than it ever has been, and a rainfall of 50 inches at London would make the metropolis wetter than it ever was. The colouring of the map does not show the *amount* of rainfall, but only the relation of 1907 to the average at each place.

Looking more closely at the map we see that a large area in the north of Ireland had an excess of more than 10 per cent., and a

nearly equal area in the south of Ireland had a deficiency of more than 10 per cent., while the rest of the island showed little deviation from a normal year, so far as total amount is concerned ; the one exception being the wet area to the north of Limerick, where the heavy thunderstorm rain of July 22nd left its mark on the year.

In Scotland the wet October, and especially the heavy rain on the 15th, had most to do with drawing the area with more than 10 per cent. excess across the whole of the Lowland plain, and the extraordinary wetness of the spring months from March to May raised the excess in the south-west of Scotland for the whole year to more than 20 per cent., and in parts to more than 25 per cent., this being the wettest part of the British Isles. The north of Scotland, and apparently the greater part of the Highlands (but here we speak cautiously, for gauges are few), was on the whole affected by a moderate deficiency, probably nowhere more than 10 per cent., and excesses of 10 per cent. or more only occurred, so far as we can ascertain, in two small areas, one in the west of Ross-shire, the other in the west of Aberdeenshire.

Wales was conspicuously dry, only three small portions on the coast reaching the average, and the wonderful drought of September may be taken as sufficient explanation.

Were it not for the heavy thunderstorm rains of July 21st and 22nd, and the severe cyclonic rain of October 16th, the map of England would have been nearly all red. Where those storms were most severe the rainfall exceeded the average by 10 per cent. or even more ; where they did not reach there were large tracts with a deficiency exceeding 10 per cent., this being most marked in Essex, Surrey, West Kent, Sussex, north-east Norfolk, central Lincoln, and the East and North Ridings of York. The belt of land between the Trent and Severn, which had received less than the average rainfall for several years, was wet on this occasion, except in the valley of the Lower Trent, where the fall did not quite reach the average. On the whole, however, it may be said that the fluctuations of rainfall from point to point over England have rarely been less extreme than in 1907.

**COMPARISON OF THE RAINFALL OF THE YEAR 1907  
WITH THE AVERAGE OF THE PERIODS  
1890-99 & 1870-99.**

**ENGLAND & WALES.**

DIV.	COUNTY.	STATION.	Average, 1890-9.	Average, 1870-99.	Depth in 1907.	Difference from average, 1870-99.	
						Per Amount.	cent.
			in.	in.	in.	in.	
I.	London, North.	St. Pancras (Camden Square)..	22.78	25.16	23.01	2.15	— 9
II.	Surrey, East ...	Dorking (Denbies).....	29.73	32.04	33.61	1.57	+ 5
„	Kent, West ...	Tenterden .....	26.76	28.36	24.86	3.50	— 12
„	„ „ ...	Tonbridge (Beech Hurst) .....	27.01	27.72	24.12	3.60	— 13
„	„ East ...	Selling (Harefield).....	28.83	29.55	26.61	2.94	— 10
„	Sussex, West...	Chichester (Chilgrove) .....	33.60	33.82	36.15	2.33	+ 7
„	„ East ...	Falmer.....	32.47	33.58	30.41	3.17	— 9
„	Hampshire.....	Ventnor (Consumption Hos.)..	27.97	29.10	24.22	4.88	— 17
„	„ .....	Alresford (Ovington) .....	30.41	(32.00)	35.34	3.34	+ 10
„	Berkshire .....	Newbury (Welford Park).....	28.75	30.29	35.23	4.94	+ 16
III.	Hertfordshire..	Hertford (Bayfordbury) .....	22.84	24.97	23.75	1.22	— 5
„	„ .....	Hitchin (Wratten).....	23.25	24.66	24.51	.15	— 1
„	Buckingham ...	Slough (Langley) .....	23.25	24.00	23.85	.15	— 1
„	„ .....	Winslow (Addington Manor) ..	23.84	26.75	25.54	1.21	— 4
„	Oxfordshire ...	Oxford (Magdalen College) ...	21.40	24.54	25.50	.96	+ 4
„	„ .....	Bloxham Grove .....	23.40	(27.20)	27.09	.11	— 0
„	Northampton...	Wellingboro' (Croyland Abbey)	21.55	25.31	25.88	.57	+ 2
„	Cambridgeshire	Stretham Engine .....	20.96	22.16	19.84	2.32	— 10
„	„ .....	Wisbech (Bank House).....	22.28	24.89	21.76	3.13	— 13
IV.	Essex .....	Chelmsford (High Street).....	21.22	22.96	20.73	2.23	— 10
„	„ .....	Newport (The Vicarage) .....	24.27	(24.80)	23.81	.99	— 4
„	Suffolk .....	Rendlesham Hall .....	22.60	(23.70)	21.75	1.95	— 8
„	„ .....	Ixworth (Walsham-le-Willows)	25.17	25.87	24.55	1.32	— 5
„	Norfolk .....	Geldeston [Beccles] .....	22.97	23.93	22.51	1.42	— 6
„	„ .....	Swaffham (Dunham) .....	25.92	28.41	24.35	4.06	— 14
„	„ .....	North Walsham (Dilham).....	24.85	(27.10)	26.02	1.08	— 4
V.	Wiltshire .....	Salisbury Plain (Chitterne Ho.)	26.88	28.56	27.76	.80	— 3
„	„ .....	New Swindon .....	26.26	(28.20)	27.72	.48	— 2
„	Dorsetshire ...	Wareham (Castle Gardens) ...	30.32	(31.90)	31.19	.71	— 2
„	„ .....	Beaminster Vicarage.....	34.87	(38.20)	35.42	2.78	— 7
„	Devonshire, S...	Ashburton (Druid House).....	49.99	52.92	49.74	3.18	— 6
„	„ „ .....	Polapit Tamar.....	36.79	38.85	38.14	.71	— 2
„	„ „ .....	Bampton (Huntsham) .....	45.28	(46.80)	39.18	7.62	— 16
„	„ „ N..	Bideford (Northam) .....	34.35	36.19	31.80	4.39	— 12
„	Cornwall .....	Penzance (St. Clare) .....	41.33	(43.40)	41.39	2.01	— 5
„	„ .....	St. Austell (Trevarna) .....	42.75	47.16	42.01	5.15	— 11
„	Somerset, N....	Street .....	26.90	30.40	31.95	1.55	+ 5
VI.	Gloucester, W..	Clifton (Pembroke Road) .....	32.59	35.45	35.25	.20	— 1
„	„ „ .....	Stroud (Upfield).....	26.83	29.85	31.60	1.75	+ 6
„	Herefordshire...	Ross (The Graig) .....	25.61	29.51	30.95	1.44	+ 5

## ENGLAND &amp; WALES—(continued).

DIV.	COUNTY.	STATION.	Average, 1890-9.	Average, 1870-99.	Depth in 1907.	Difference from average, 1870-99.
						Per Amount. cent.
			in.	in.	in.	in.
VI.	Herefordshire...	Kington (Lynhales) .....	29·50	33·56	33·13	·43 — 1
„	Shropshire .....	Bishops Castle (Castle Street)..	28·46	(32·90)	32·60	·30 — 1
„	„ ..	Shifnal (Haughton Hall) .....	25·41	28·21	28·60	·39 + 1
„	„ ..	Market Drayton (Buntingsdale)	26·53	(28·70)	31·06	2·36 + 8
„	Staffordshire ..	Burton (Rangemore) .....	24·96	28·01	31·85	3·84 + 14
„	„ ..	Cheadle (The Heath House) ...	30·05	(33·50)	31·92	1·58 — 5
„	Worcestershire.	Northwick Park .....	25·24	29·22	30·62	1·40 + 5
„	„ ..	Grt. Malvern (Church Street).	24·79	(29·00)	32·31	3·31 + 11
„	„ ..	Stourbridge (Pedmore) .....	25·59	(29·20)	28·57	·63 — 2
„	Warwickshire..	Coventry (Kingswood) ... ..	26·98	29·21	29·28	·07 + 0
VII.	Leicestershire ..	Thornton Reservoir .....	24·17	26·48	28·47	1·99 + 8
„	Rutland .....	Market Overton .....	24·05	(26·90)	30·63	3·73 + 14
„	Lincoln, South.	Boston .....	20·20	23·30	22·36	·94 — 4
„	„ „	Stubton [Newark] .....	21·47	24·87	22·39	2·48 — 10
„	„ „ North.	Louth (Westgate) .....	27·59	29·18	25·83	3·35 — 11
„	„ „	Brigg .....	24·40	26·31	24·31	2·00 — 8
„	Nottingham ...	Worksop (Hodsock Priory) ...	22·67	(24·70)	23·66	1·04 — 4
„	Derbyshire .....	Matlock Bath .....	28·93	35·07	34·96	·11 — 0
VIII.	Cheshire .....	Chester (Christleton Hall) ...	26·85	(28·65)	26·86	1·79 — 6
„	„ ..	Chelford (Astle Hall) .....	28·49	(30·60)	31·20	·60 + 2
„	„ ..	Torrside Reservoir .....	43·93	44·98	46·73	1·75 + 4
„	Lancashire, S...	Ormskirk (Aughton Springs)..	31·31	30·69	30·99	·30 + 1
„	„ C...	Stonyhurst College .....	48·16	47·57	49·97	2·40 + 5
„	„ N...	Ulverston (Poaka Beck) .....	52·16	51·80	58·14	6·34 + 12
IX.	York, WR Central	Wakefield Prison .....	24·86	(26·80)	24·13	2·67 — 10
„	„ „ „	Malham Tarn .....	58·44	58·17	59·80	1·63 + 3
„	„ „ North	Wetherby (Ribston Hall) .....	23·69	26·96	29·44	2·48 + 9
„	„ E. Riding.	Pocklington (Warter) .....	29·03	30·75	27·75	3·00 — 10
„	„ N. Riding.	Scarborough (Osgodby) .....	25·11	(27·70)	23·07	4·63 — 17
„	„ „	Northallerton (Osmotherley)...	23·86	27·35	26·88	·47 — 2
„	„ „	Middlesbrough (Albert Park).	24·72	(24·30)	23·38	·92 — 4
X.	Durham .....	Wearhead Station .....	(53·80)	(55·00)	53·60	1·40 — 3
„	„ ..	Sunderland (W. Hendon House)	25·11	26·19	23·53	2·66 — 10
„	Northumberland	Hallington (Fawcett) .....	28·73	29·12	28·16	·96 — 3
„	„ ..	Rothbury (Crag-side) ... ..	33·27	34·41	34·12	·29 — 1
„	„ ..	Ilderton (Lilburn Tower) .....	26·17	29·19	29·08	·11 — 0
„	Cumberland ...	Borrowdale (Seathwaite) .....	134·08	132·68	128·81	3·87 — 3
„	„ ..	Carlisle (Spital Cemetery) .....	33·04	31·64	36·49	4·85 + 15
„	Westmorland...	Kirkby Stephen (Redman Ho.)	46·05	42·12	41·00	1·12 — 3
XI.	Monmouth .....	Abergavenny (Larchfield) .....	34·91	37·82	35·34	2·48 — 7
„	Glamorgan .....	Cardiff (Ely) .....	39·51	42·81	42·32	·49 — 1
„	„ ..	Neath .....	47·28	(50·50)	53·23	2·73 + 5
„	Carmarthen ...	Llanwrda (Dolaucothy) .....	(55·06)	(59·57)	57·26	2·31 — 4
„	Pembroke .....	Pembroke (Stackpole Court) ..	37·70	(41·20)	39·13	2·07 — 5
„	„ ..	Castle Malgwyn [Llechryd] ...	40·85	43·85	41·89	1·96 — 4
„	Cardigan .....	Aberystwyth (Gogerddan) ...	44·67	45·41	47·05	1·64 + 4
„	Brecon .....	Nanthir Reservoir [Aberdare].	57·08	(60·20)	55·03	5·17 — 9

## ENGLAND &amp; WALES—(continued).

DIV.	COUNTY.	STATION.	Average, 1890-9.	Average, 1870-99.	Depth in 1907.	Difference from average, 1870-99.	Per Amount. cent.
			in.	in.	in.	in.	
XI.	Montgomery ...	Llangurig (Ystrad-olwyn-fawr)	50·57	53·31	48·80	4·51	— 8
„	Flint .....	Bodfari (Nantlys) .....	26·30	28·71	26·51	2·20	— 8
„	Merioneth .....	Llanderfel (Palé) .....	45·65	(48·20)	45·09	3·11	— 6
„	Carnarvon .....	Criccieth (Talarvor) .....	35·56	35·83	32·34	3·49	— 10
„	Anglesea .....	Llanerchymedd (Llwydiarth Esgob) ...	38·60	38·21	39·43	1·22	+ 3
„	Isle of Man ...	Douglas (Woodville) .....	41·83	(43·30)	42·00	1·30	— 3
„	Seilly .....	St. Mary's .....	31·23	(32·80)	29·26	3·54	— 11

## SCOTLAND.

XII.	Wigtown .....	Stoneykirk (Ardwell House)...	34·77	(35·05)	43·93	8·88	+ 25
„	Kirkcudbright.	Auchencairn (Torr House) ...	46·02	46·45	58·47	12·02	+ 26
„	„	Cargen [Dumfries] .....	43·90	43·43	49·29	5·86	+ 14
„	Dumfries .....	Moffat (Ericstane) .....	52·60	54·97	53·13	1·84	— 3
„	Roxburgh .....	Hawick (Branxholme) .....	33·89	(34·80)	35·05	·25	+ 1
XIII.	Selkirk .....	Galashiels (Abbotsford Road).	31·26	33·82	32·28	1·54	— 5
„	Berwick .....	Marchmont House .....	31·93	34·94	33·34	1·60	— 5
„	Haddington ...	Prestonkirk (Smeaton) .....	24·33	25·72	30·39	4·67	+ 18
„	Midlothian.....	Pentland Hills (Glencorse) ...	38·93	39·55	42·81	3·26	+ 8
XIV.	Lanark .....	Airdrie (Hillend Res.) .....	38·68	37·30	42·37	5·07	+ 14
„	Ayr.....	Girvan (Pinmore) .....	46·98	48·87	57·67	8·80	+ 18
„	„	Loch Finlas .....	50·86	(51·70)	63·27	11·57	+ 22
„	„	Kilmarnock (North Craig) ...	42·45	39·46	47·80	8·34	+ 21
„	Renfrew.....	Gorbals W.W. (Waulk Glen)..	49·00	46·91	55·10	8·19	+ 17
XV.	Stirling .....	Stirling (Polmaise Gardens)...	34·59	35·80	40·43	4·63	+ 13
„	Argyll .....	Mull of Kintyre .....	40·58	40·33	48·39	8·06	+ 20
„	„	Inveraray (Newtown) .....	72·27	(62·80)	74·85	12·05	+ 19
„	„	Strontian (Laudale) .....	68·69	(72·20)	76·65	4·45	+ 6
„	„	Islay (Ardbeg) .....	43·00	(44·60)	51·08	6·48	+ 15
„	„	Mull (Quinish) .....	56·30	(57·50)	55·06	2·44	— 4
XVI.	Kinross .....	Loch Leven Sluice.....	35·83	36·20	40·43	4·23	+ 12
„	Fife .....	Colinsburgh (Balcarres) .....	32·93	(34·90)	34·10	·80	— 2
„	Perth .....	Bridge of Turk .....	60·56	66·66	60·95	5·71	— 9
„	„	Balquhiddel (Stronvar).....	72·98	(74·70)	66·53	8·17	— 11
„	„	Dunkeld (Inverbraan) .....	38·00	(39·80)	36·08	3·72	— 9
„	„	Blair Atholl .....	32·08	(33·36)	32·60	·76	— 2
„	Forfar .....	Dundee (Eastern Necropolis)..	27·55	28·95	31·40	2·45	+ 8
„	„	Kirriemuir (Lintrathen) .....	33·03	(35·60)	37·89	2·29	+ 6
„	„	Montrose (Sunnyside Asylum)	26·98	29·16	32·51	3·35	+ 11
XVII.	Aberdeen .....	Braemar .....	34·51	36·07	31·53	4·54	— 13
„	„	Logie Coldstone (Loanhead) ...	30·68	30·00	34·64	4·64	+ 15
„	„	Ellon (Mains of Waterton) ...	30·09	30·91	29·37	1·54	— 5
„	Banff .....	Keith Station.....	33·84	32·72	34·13	1·41	+ 4
„	Elgin .....	Grantown .....	31·69	31·00	29·18	1·82	— 6
„	Nairn .....	Cawdor .....	30·34	29·37	30·54	1·17	+ 4
XVIII.	Inverness, West	Loch Shiel (Glenfinnan) .....	108·85	105·29	100·45	4·84	— 5
„	„	Glenquoich .....	112·44	108·26	123·54	15·28	+ 14
„	„	East Fort Augustus, St. Benedict's.	46·85	(43·71)	41·96	1·75	— 4

## SCOTLAND—(continued).

DIV.	COUNTY.	STATION.	Average, 1890-9.	Average, 1870-99.	Depth in 1907.	Difference from average 1870-99.	
						Amount.	Per cent.
			in.	in.	in.	in.	
XVIII.	Ross, West	Glencarron	93·91	(88·40)	86·25	2·15	— 2
"	"	Loch Torridon (Bendamph)	88·95	(86·50)	90·92	4·42	+ 5
"	"	Braemore House	64·48	58·56	57·65	·91	— 2
"	" East	Strathpeffer	31·86	(31·30)	29·04	2·26	— 7
"	"	Fearn (Lower Pitkerrie)	23·50	23·52	21·85	1·67	— 7
XIX.	Sutherland	Invershin	32·66	32·76	31·51	1·25	— 4
"	"	Dunrobin Castle	32·26	31·60	32·17	·57	+ 2
"	Caithness	Wick	30·91	(29·30)	29·62	·32	+ 1
"	Orkney	Shapinsay (Balfour Castle)	32·74	31·66	26·51	5·15	— 16

## IRELAND.

XX.	Cork	Roches Point	43·32	(47·20)	39·60	7·60	— 16
"	Kerry	Kenmare (Derreen)	66·16	(69·50)	62·15	7·35	— 11
"	"	Valencia (Glanleam)	55·30	(55·90)	52·22	3·68	— 7
"	"	Killarney (District Asylum)	55·10	58·11	46·90	11·21	— 19
"	Waterford	Waterford (Brook Lodge)	38·56	(39·30)	39·89	·59	+ 2
"	"	Glenam [Clonmel]	40·89	42·17	40·34	1·83	— 4
"	Clare	Broadford (Hurdlestown)	33·31	(33·50)	37·47	3·97	+ 12
"	"	Miltown Malbay	45·31	(44·50)	47·67	3·17	+ 7
XXI.	Wexford	Enniscorthy (Ballyhyland)	41·45	42·87	40·32	2·55	— 6
"	"	Gorey (Courtown House)	33·62	35·72	33·04	2·68	— 7
"	Wicklow	Bray (Fassaroe)	39·68	40·55	37·84	2·71	— 7
"	Carlow	Bagnalstown (Fenagh House)	35·37	(35·90)	35·27	·63	— 2
"	Queen's Co.	Abbey Leix (Blandsfort)	36·52	35·19	38·03	2·84	+ 8
"	King's Co.	Birr Castle	32·96	33·06	34·37	1·31	+ 4
"	Dublin	Dublin (FitzWilliam Square)	27·30	27·75	26·99	·76	— 3
"	Meath	Moynalty (Westland)	36·67	(37·40)	37·70	·30	+ 1
"	Westmeath	Mullingar (Belvedere)	36·50	(36·50)	33·31	3·19	— 9
"	Louth	Greenore	31·33	(32·10)	34·34	2·24	+ 7
XXII.	Galway	Galway (Queen's College)	40·01	41·59	41·34	·25	— 1
"	"	Ballinasloe	36·58	37·04	37·24	·20	+ 1
"	"	Clifden (Kylemore House)	79·82	(80·20)	74·51	5·69	— 7
"	"	Tuam (Gardenfield)	42·18	(41·90)	42·27	·37	+ 1
"	Mayo	Crossmolina (Enniscoe)	52·60	(50·50)	53·81	3·31	+ 7
"	Sligo	Collooney (Markree Obs.)	41·27	41·83	45·18	3·35	+ 8
XXIII.	Cavan	Belturbet (Cloverhill)	32·72	(32·92)	31·89	1·03	— 3
"	Armagh	Armagh Observatory	30·97	31·36	31·57	·21	+ 1
"	Down	Seaforde	36·27	38·61	39·93	1·32	+ 3
"	"	Banbridge (Milltown)	30·23	31·47	31·61	·14	+ 0
"	"	Donaghadee	30·39	(32·00)	33·20	1·20	+ 4
"	Antrim	Belfast (Queen's College)	32·00	33·23	38·04	4·81	+ 15
"	"	Ballymena (Harryville)	39·52	(39·60)	44·66	5·06	+ 13
"	"	Bushmills (Dundarave)	36·70	(38·20)	43·06	4·86	+ 13
"	Londonderry	Garvagh (Moneydig)	37·95	39·16	41·55	2·39	+ 6
"	"	Londonderry (Creggan Res.)	41·36	(41·20)	47·16	5·96	+ 15
"	Donegal	Killybegs (White House)	59·87	(59·40)	64·83	5·43	+ 9
"	"	Malin Head	31·76	(34·50)	36·41	1·91	+ 6



*Rough Comparison of the Rainfall for 27 Years.*

ENGLAND & WALES.				SCOTLAND.			IRELAND.			BRITISH ISLES.				Corrected Values.
Fall.	Diff. from Average.		Fall.	Diff. from Average.		Fall.	Diff. from Average.		Fall.	Diff. from Average.				
	Amt.	p.c.		Amt.	p.c.		Amt.	p.c.		Amt.	p.c.			
Average	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.		
	33·92	—	—	46·85	—	—	42·28	—	—	39·25	—	—		
Year.														
1881	35·81	1·89	+ 6	38·09	8·76	—19	36·11	6·17	—15	36·26	2·99	— 8	+ 2	
1882	41·91	7·99	+24	44·75	2·10	— 4	40·83	1·45	— 3	42·42	3·17	+ 8	+18	
1883	36·82	2·90	+ 8	39·81	7·04	—15	39·91	2·37	— 6	37·51	1·74	— 4	+ 6	
1884	29·24	4·68	—14	40·25	6·60	—14	35·50	6·78	—16	31·56	7·69	—20	—10	
1885	33·25	·67	— 2	33·78	13·07	—28	35·52	6·76	—16	33·41	5·84	—15	— 5	
1886	37·53	3·61	+11	37·31	9·54	—20	41·61	·67	— 2	37·59	1·66	— 4	+ 6	
1887	23·60	10·32	—30	29·14	17·71	—38	24·72	17·56	—42	24·80	14·45	—37	—27	
1888	31·66	2·26	— 7	37·10	9·75	—21	39·61	2·67	— 6	32·98	6·27	—16	— 6	
1889	31·10	2·82	— 8	32·81	14·04	—30	33·49	8·79	—21	31·52	7·73	—20	—10	
1890	30·07	3·85	—11	46·56	·29	— 1	38·54	3·74	— 9	36·20	3·05	— 8	— 3	
1891	37·36	3·44	+10	43·59	3·26	— 7	39·35	2·93	— 7	39·41	·16	+ 0	+ 5	
1892	30·35	3·57	—11	42·55	4·30	— 9	39·13	3·15	— 7	35·42	3·83	—10	— 5	
1893	28·21	5·71	—17	41·67	5·18	—11	32·50	9·78	—23	32·63	6·62	—17	—12	
1894	36·14	2·22	+ 6	44·20	2·65	— 6	40·82	1·46	— 3	39·18	·07	— 0	+ 5	
1895	31·32	2·60	— 8	39·32	7·53	—16	37·63	4·65	—11	34·66	4·59	—12	— 7	
1896	30·94	2·98	— 9	42·11	4·74	—10	37·35	4·93	—12	35·06	4·19	—11	— 6	
1897	34·14	·22	+ 1	43·70	3·15	— 7	43·53	1·25	+ 3	38·38	·87	— 2	+ 3	
1898	29·42	4·50	—13	49·82	2·97	+ 6	38·40	3·88	— 9	36·46	2·79	— 7	— 2	
1899	31·52	2·40	— 7	47·82	·97	+ 2	40·04	2·24	— 5	37·28	1·97	— 5	— 5	
1900	36·37	2·45	+ 7	53·38	6·53	+14	45·48	3·20	+ 8	42·34	3·09	+ 8	+ 8	
1901	29·83	4·09	—12	41·04	5·81	—12	40·33	1·95	— 5	34·85	4·40	—11	—11	
1902	28·01	5·91	—17	38·73	8·12	—17	37·56	4·72	—11	32·71	6·54	—17	—17	
1903	43·81	·989	+29	59·05	12·20	+26	51·11	8·83	+21	49·26	10·01	+26	+26	
1904	30·25	3·67	—11	43·70	3·15	— 7	40·67	1·61	— 4	35·81	3·44	— 9	— 9	
1905	28·80	5·12	—15	43·04	3·81	— 8	35·80	6·48	—15	33·92	5·33	—14	—14	
1906	34·23	·31	+ 1	48·69	1·84	+ 4	37·85	4·43	—10	38·71	·54	— 1	— 1	
1907	33·61	·31	— 1	47·33	·52	+ 1	41·55	·73	— 2	38·87	·38	— 1	— 1	

## EXTREMES OF RAINFALL IN 1907.

Greatest Rainfall, at Llyn Llydaw Copper Mine, Carnarvonshire ... 196·16 in.

Least Rainfall, at Clacton-on-Sea, Essex ..... 16·66 ,,

## ENGLAND.

GREATEST.		LEAST.	
Div.	in.	Div.	in.
X. The Sty, C.....	178·63	IV. Clacton-on-Sea.....	16·66
„ Styehed Tarn.....	148·45	„ Foulness (The Lodge).....	17·10
„ Borrowdale (Seathwaite) ...	129·26	II. Whitstable (Tankerton).....	17·18
„ Mickleden .....	122·51	IV. Great Clacton (Clay Hall)...	17·63
„ Little Langdale (Fell Foot). 111·58		„ Clacton-on-Sea(Clacton Coll.)	17·65
„ Ullscarf .....	109·60	„ Shoeburyness .....	17·73

## WALES.

GREATEST.		LEAST.	
Div.	in.	Div.	in.
XI. Snowdon (Llyn Llydaw Copper Mine)	196·16	XI. Llanefydd (Rhyl W.W., W.)	20·96
„ „ ( „ „ Intake) ...	154·34	„ Bagillt (Lead Works).....	21·97
„ Beddgelert (Moel Hebog) ...	112·50	„ Colwyn Bay (East Parade)..	22·23
„ Eigiau, Upper .....	104·50	„ „ „ (Four Crosses). 23·99	
„ Plynlimon .....	100·40	„ Rhyl (Sewage Works) .....	24·29
„ Eigiau Lake .....	96·00	„ Llanefydd (Plas Uchaf Res.)	24·73

## SCOTLAND.

GREATEST.		LEAST.	
Div.	in.	Div.	in.
XVIII. Glenquoich .....	123·54	XVIII. Fearn (Lower Pitkerrie) ...	21·85
„ Achnashellach (Glenuaig)..	123·40	XIX. Watten Station .....	21·97
XV. Ben Lomond .....	114·80	XVII. Kinloss .....	23·83
XVIII. Loch Shiel (Glenfinnan) ...	100·45	„ Duffus House .....	24·81
„ Skye (Dunvegan) .....	99·65	XVIII. Evanton (Swordale House)..	25·40
„ Glen Dessary .....	98·10	XIII. West Foulden .....	25·54

## IRELAND.

GREATEST.		LEAST.	
Div.	in.	Div.	in.
XX. Gap of Dunloe (Garrymeen)	89·00	XXI. Lambay Island.....	22·59
XXIII. Killybegs (Faiafannan) .....	76·62	„ Rathmines (Terenure) .....	25·10
XXII. Clifden (Kylemore House)...	74·51	„ Kingstown (Harbour Yard). 25·34	
XX. Lough Caragh (Lickeen) ...	71·74	„ Malahide (The Green) .....	25·35
XXIII. Killybegs (White House) ...	64·83	„ Dublin (Trinity College) ...	25·70
„ Lough Eske Castle .....	64·28	„ Kingstown (People's Park)..	25·77

## NOTE.

Second gauges, and those at Lighthouses, are excluded from the above, as also are those to which a ? has been attached in the General Table. In selecting the minima, records are only used from gauges the receiving surface of which is known to be less than 3 ft. above the ground.

**GENERAL TABLE**  
**OF**  
**TOTAL RAINFALL IN 1907,**  
**AT MORE THAN**  
**4000 STATIONS**  
**IN THE**  
**BRITISH ISLES.**

## EXPLANATORY NOTE.

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The divisions in the General Table are the same as those adopted by the Registrars General of England and Scotland, and the counties follow the same order as in the reports of those officers ; but reference to the stations is facilitated by sub-dividing some of the larger counties. The stations in each county or sub-division are arranged nearly in the order of their latitude from South to North.

For convenience in finding the locality of any gauge, the first name is almost always that of a place given in *Bradshaw*, the *Post Office Guide*, or the *Clergy List* ; the second name is generally added to fix the site of Observation more closely ; but, in a very few instances, when in [ ] instead of ( ), it is that of the nearest town in an adjoining county ; *e.g.*, “Haslemere (Weycombe)” means Weycombe near Haslemere, both in one county ; but “Geldeston [Beccles]” means Geldeston near Beccles, which is in another county.

In the column headed “diameter,” figures in old-style type indicate the length of the sides of rectangular mouthed gauges. These measurements are all in inches.

The letter D denotes that a copy of the daily record has been received, that it is complete for the year, and that the printed amount is the correct total of the daily entries. The letter M indicates that the gauge is read only on the first of each month. (R) denotes that the gauge used is a self-recording instrument.

A few entries of total rain will be found in italics—indicating that the values have been corrected, *e.g.*, when monthly gauges are read on a date other than the 1st, or when snow is neglected.

A dagger (†) denotes that the rain gauge has been visited and examined by the Editor or his assistants, and a section (§) that it has not been seen by the Editor, but is subject to inspection by the Meteorological Office or by one of the Meteorological Societies. A note of interrogation (?) implies doubt, not necessarily error ; the absence of information is indicated by ...

In the column of altitudes the sign ₐ means that a series of levels has been taken from the gauge to an Ordnance Survey bench mark ; ʔ, that the height has been ascertained approximately from the same source ; ʟ, that levels have been taken from the gauge to the sea, or to some non-official datum ; and ʙ, that the altitude has been taken by the barometer.

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# ENGLAND AND WALES.

## DIVISION I.—LONDON.

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain.	Days with .01 or more recorded.
		Diameter	Height Above Ground	Height Above Sea Level	1907	
		in.	ft. in.	feet.	inches.	
<b>NORTH OF THE THAMES.</b>						
§ PADDINGTON (Harrow Road) ...	C. W. Heinemann, Esq.	8	1 0	101	24·37	180
D† KENSINGTON (V. & A. Museum).	W. I. Last, Esq., C.E..	8	0 6	27	21·22	168
D „ (Holland House) ...	Mr. C. Dixon .....	5	4 6	68	22·52	158
D „ (Addison Gardens).	G. H. M. Whish, Esq..	5	1 1	23	21·80	159
D† „ (Campden Hill) ...	Met. Water Board.....	8	4 10	130	23·34	165
D† „ (Grand Junction W.W.)	„ „ „ .....	8	1 0	142	25·19	183
<b>FULHAM.</b>						
D† W. Kensington (Edith Rd.)	G. Searle, Esq.....	5	0 10	16	21·22	166
D CHELSEA (Pumping Station) ...	M Fitzmaurice Esq CMG	8	1 0	19	21·59	165
D „ (Physic Garden) .....	W. Hales, Esq. ....	5	1 0	20	21·04	171
D „ (St. Luke's Gardens)...	T. W. E. Higgins Esq. CE	5	1 0	25	22·00	166
D† WESTMINSTER (Commercial Road)	Met. Water Board.....	5	7 0	27	20·50	168
D „ (Winchester St.)	Mr. G. T. Osborn .....	4	6 6	56	21·06	155
„ „ „ „ „ „	„ „ „ „ „ „	4	6 6	56	20·42	...
„ „ (Chester Square) .....	C. Lethbridge, Esq. ...	5	10 0	35	20·61	185
D† „ (Buckingham Palace)	Major Hussey.....	5	8 6	35 ?	21·40	164
„ „ (Kensington Gardens)	Mr. Wm. Jones .....	8	1 10	...	21·73	...
D§ „ (St. James's Park) ...	Meteorological Office ..	8	1 0	54	19·52	162
„ „ (Spring Gardens) ... (1)	M Fitzmaurice Esq CMG	8	66 4	95	18·95	...
„ „ „ „ „ „ (2)	„ „ „ „ „ „	12	65 11	95	18·12	...
„ „ „ „ „ „ (3)	„ „ „ „ „ „	8	6 0	35	19·81	...
D „ (Strand) .....	J. J. Steward, Esq. ...	5	40 0	80	20·52	150
<b>ST. MARYLEBONE</b>						
„ „ (Northwick Terrace) .....	E. Heron Allen, Esq...	5	0 5	130	24·27	...
D§ „ „ Regent's Pk (R Botanic Gdns)	J. B. Sowerby, Esq. ...	8	0 8	126	23·79	177
„ „ (Hamilton Terrace) .....	Miss Cobb .....	5	0 11	125	22·17	...
D† HAMPSTEAD (Barrow Hill Res.)..	Met. Water Board.....	5	3 4	197	21·78	179
„ „ (Akenside Road) ...	E. L. Hawke, Esq. ...	5	1 0	285	23·86	187
„ „ (Holmdale Road) ...	A. G. Kitching, Esq....	5	2 3	...	21·78	...

## DIVISION I.—LONDON.—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.				Depth of Rain.	Days with .01 or more recorded.
		Diameter	Height Above Ground		Height Above Sea Level	1907	
		in.	ft.	in.	feet.	inches.	
<b>NORTH OF THE THAMES—(con.)</b>							
HAMPSTEAD (Willoughby Road).	C. Clarke, Esq. ....	5	2	0	...	23·62	...
D† „ (Kidderpore Res.)...	Met. Water Board .....	5	1	0	323 A	22·83	172
D „ (Bathing Pond)...	Mr. W. Pikesley .....	5	1	0	240 ?	20·51	172
„ (Squire's Mount) ...	The Misses Field .....	5	1	0	388 A	23·57	...
D† St. PANCRAS (Camden Square)...	Dr. H. R. Mill .....	8	0	9	111 A	23·01	175
† „ ( „ „) <i>weekly</i> „ „ „ .....	„ „ „ .....	5	1	2	111 A	22·99	...
D† „ ( „ „) <i>Snow g.</i> „ „ „ .....	„ „ „ .....	8	3	5	113 A	21·69	157
† „ ( „ „) <i>float g.</i> „ „ „ .....	„ „ „ .....	8	0	11	111 A	22·68	...
D „ (St. Augustine's Rd.)	A. E. Payne, Esq. ....	5	1	0	150	23·49	184
<b>STOKE NEWINGTON</b>							
D† „ (New River Filter Beds)	Met. Water Board .....	5	1	0	101 A	23·12	157
D† „ „ ( „ „ Reservoirs)	„ „ „ .....	5	4	0	105 A	23·12	175
† „ „ (Woodberry Down) ..	H. Sowerby Wallis, Esq. ....	5	1	0	115	24·02	...
D HACKNEY (Clapton Pond) ... (R)	Norman Scorgie, Esq. C.E.	8	2	6	70 A	21·94	158
D† HOLBORN (Stone Yard) .....	E. F. Spurrell, Esq. ...	5	12	0	89 A	21·60	159
D† FINSBURY (New River Head) ...	Met. Water Board .....	5	3	8	100	19·33	154
D CITY OF LONDON (Guildhall) ...	F. Sumner, Esq., C.E..	8	51	0	98 T	22·18	158
D „ „ „ „ „ „ „ „	„ „ „ „ „ „ „ „	8	2	6	49 T	21·33	158
§ SHOREDITCH (Old Street) .....	Royal Meteorological Soc	5	1	0	70 T	18·94	..
STEPNEY (Mile End) .....	J. Metson, Esq. ....	5	14	0	50	23·21	...
† „ (Nature Study Museum)	Miss K. M. Hall .....	5	1	0	35 A	20·97	...
D POPLAR (Isle of Dogs) .....	M Fitzmaurice Esq CMG	8	1	0	15 A	20·64	161
D „ (Old Ford) .....	Met. Water Board .....	8	0	9	19 A	20·79	158
D „ ( „ „ Penstocks)...	M Fitzmaurice Esq CMG	8	1	0	35 A	20·72	146
WOOLWICH (N. Woolwich Pumpg. Sta.)	„ „ „	8	0	9	12	18·80	...
D „ (Barking Outfall) ...	„ „ „	8	0	6	6 A	20·18	163
<b>SOUTH OF THE THAMES.</b>							
BERMONDSEY (Southwark Pk.) (R)	Lt.-Col. J. J. Sexby ...	5	10	0	19 A	19·12	...
LAMBETH,							
D§ West Norwood (Thornlaw Rd.)	W. Marriott, Esq. ....	5	1	0	221	22·95	183
„ (Brockwell Park) .....	Lt.-Col. J. J. Sexby ...	8	1	3	140 A	26·40	...
D BATTERSEA (Battersea Park) ...	„ „ „ „ „ „	5	9	8	23	23·77	166
D „ Nine Elms (Heathwall)	M Fitzmaurice Esq CMG	8	39	4	54 A	17·88	148
<b>WANDSWORTH,</b>							
D† Streatham (Southwark W.W.)	Met. Water Board .....	5	4	1	120	20·07	167
D „ Clapham Park (Atkins Road)	D. W. Horner, Esq. ...	5	1	0	120 T	24·13	170
D „ (Putney Heath) .....	Met. Water Board .....	5	1	0	180 A	22·31	175
„ Wimbledon Pk. (Woodhouse)	Sir A. E. Bateman ...	5	1	1	150	23·58	151
D§ „ Wandsworth Com. (Patten Rd)	F. C. Bayard, Esq. ...	5	1	0	100	23·08	178
„ Clapham Com. (Macaulay Rd.)	Miss A. H. Boyson .....	5	1	0	75	22·31	...
„ „ „ (The Chase) ...	H. N. Prentice, Esq. ....	5	1	5	70	21·02	...
D CAMBERWELL (Dulwich Wood Pk)	H. V. Caldicott, Esq. ...	5	1	2	276	23·79	163
D† „ Nunhead (Southwark W.W.)	Met. Water Board .....	5	4	0	176	19·03	149
D DEPTFORD (Telegraph Hill) .....	Lt.-Col. J. J. Sexby ...	5	9	6	135	25·80	171
D† „ (Kent Water Works)	Met. Water Board .....	5	1	0	20	20·40	145
<b>GREENWICH</b>							
D† (Deptford Pumping Station)	M Fitzmaurice Esq CMG	10	4	0	21 A	24·17	143

## DIVISION I.—LONDON—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain. 1907	Days with -01 or more recorded.
		Diameter	Height Above Ground	Height Above Sea Level		
		in.	ft. in.	feet.	inches.	
SOUTH OF THE THAMES—(con.)						
GREENWICH						
D <sup>+</sup> (Royal Observatory)..No. 6	Sir W. Christie, K.C.B.	8	0 5	155 T	22·25	163
† „ ( „ „ )No. 7M	„ „ „	8	5 0	155 T	21·58	...
† „ ( „ „ )No. 5	„ „ „	8	10 0	165 T	21·47	...
† „ ( „ „ )No. 4	„ „ „	8	21 6	176 T	19·40	...
† „ ( „ „ )No. 3	„ „ „	8	38 4	193 T	17·80	...
LEWISHAM,						
Forest Hill (Dartmouth Rd.)	F. C. Bayard, Esq. ...	5	1 0	220	22·73	...
D <sup>+</sup> „ „ „ (Barr Beacon)...	Met. Water Board.....	5	1 0	344 T	22·94	182
D WOGLWICH, Eltham (High St.)	„ „ „ .....	5	1 0	245	22·26	146

## DIVISION II.—SOUTH EASTERN COUNTIES.

## WEST SURREY.

D Haslemere (Courts Hill) .....	J. W. Penfold, Esq. ...	8	4 0	481 T	33·68	169
D „ (Jesses) .....Snowdon	A. F. Parbury, Esq. ...	5	1 0	572 T	34·74	194
„ ( „ ).....M	„ „ „ „ .....	5	1 0	573 T	34·17	...
D „ (Hazelhurst) .....	T. P. Newman, Esq. ...	5	1 0	550 B	35·21	186
„ (Clammer Hill) .....	Col. Farquhar Glennie..	5	1 0	400	33·16	166
„ (Grayswood Hill) ...	B. E. C. Chambers, Esq.	5	1 0	580 T	32·10	...
Dunsfold (Durfold) .....	Miss Billiter .....	5	1 0	225 T	27·28	...
D Chiddingfold (Beaconsroft).....	Mrs. Maclear .....	5	1 0	230 T	29·32	196
Hindhead (Stoatley Hall).....	H. Simmons, Esq. ....	5	1 0	800	36·51	...
Dunsfold Rectory .....	Rev. W. H. Winn.....	5	1 0	170	27·42	...
Haslemere (Weycombe) .....	J. Buckton, Esq. ....	5	1 0	562 T	31·53	...
Churt (Furze Hills) .....	Rev. Clements G. O. Bond	5	1 0	390	28·96	...
Oakwood Vicarage.....	Rev. Canon J. Shearmer	5	0 9	285 T	29·93	152
D Hambledon (Mervel Hill).....	J. Franklin-Adams, Esq	8	1 0	420	27·30	173
D Witley (Fernside) .....	Mrs. J. H. Foster .....	5	1 0	350 T	29·82	183
„ Manor .....	Mrs. Maitland.....	5	1 2	...	27·09	...
D „ (The Mount) .....	Mrs. Foster.....	5	1 0	375 ?	30·86	178
Hascombe Rectory.....	C. T. Musgrave, Esq...	8	1 0	450 T	29·25	...
D Cranleigh Common (Homefield Cott.)	A. F. Jones, Esq. ....	5	1 2	175 T	28·10	174
„ (Stonewall) .....	W. Welch, Esq. ....	5	1 0	182 T	29·90	...
§ „ (County School) .....	Royal Meteorological Soc	5	1 0	232 T	27·58	190
D „ (Winterfold) .....	Mr. R. Turvey .....	8	3 6	603 T	32·00	161
D Bramley (Grafham Grange).....	Sherringham A. Shepherd, Esq	8	0 4	180 T	28·13	160
D Ewhurst (Downhurst Lodge) ...	Mr. W. Bradfield .....	5	1 0	350	30·61	175
„ (Malquoits).....	W. Webb, Esq. ....	5	1 6	400	31·66	175
D „ (Coneyhurst) .....	Miss Ewart.....	8	1 0	561 T	31·82	193
„ (Woolpit) .....	Mr. H. W. Perrin .....	8	1 6	600	29·50	...
Abinger (Feldemore) .....	E. Waterhouse, Esq. ...	5	3 6	505 T	33·06	...
D „ (Joldwynds, Holmbury)	Mr. F. Cornish .....	5	1 0	550	32·96	161
D Godalming (Charterhouse) .....	O. H. Latter, Esq. ....	5	1 0	310 T	28·28	192
D Wonersh (Shamley Green) ...	Mr. A. Nash.....	5	1 0	400	28·98	173
D Tilford (Charleshill) .....	Mrs. Oliver .....	5	1 0	230 B	26·63	173
Godalming (Tilthams) .....	Col. A. C. Bigg-Wither	5	1 0	130 T	26·37	...
D Abinger Rectory .....	Miss Brodie Hall .....	5	1 0	381 T	32·32	173





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

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain. 1907	Days with .01 or more recorded.
		Diameter	Height Above Ground	Height Above Sea Level		
		in.	ft. in.	feet.	inches.	
EAST SURREY—(con.)						
D† Dorking (Rose Hill) .....	H. Belfield, Esq. ....	5	1 3	250	31·81	177
D† „ (High Street) .....	Mr. J. Beetham Wilson	5	0 7	235 T	31·25	157
D „ (Denbies) .....	Mr. J. Beesley .....	5	0 9	610 T	33·61	170
D† „ (Pixham Firs) .....	J. Croft Deverell, Esq..	8	0 6	150 ?	29·30	173
Brockham (North Lodge) .....	H. R. Kempe, Esq. ...	8	0 9	160 T	27·84	...
D Reigate (Hartswood) .....	R. W. Clutton, Esq....	5	1 0	174	26·07	188
D South Nutfield (Hale Edge) .....	F. C. Bayard, Esq....	5	1 0	270	24·37	168
D Earlswood (Sewage Farm) .....	F. T. Clayton, Esq., C.E.	5	1 0	196 A	25·49	192
D Reigate (Holmfels) .....	T. Jackson, Esq. ....	5	1 2	200 T	27·34	164
D „ (Mill Lawn) .....	G. Weston, Esq. ....	5	1 0	330 T	25·97	178
„ (Wray Lodge) .....	A. Rosling, Esq. ....	5	1 0	316 T	27·10	171
„ (Northcote) .....	F. C. Pawle, Esq. ....	5	1 0	360	28·10	195
D „ (Castle Grounds) .....	F. T. Clayton, Esq., C.E.	5	1 6	350 A	28·98	177
„ (Laglands) .....	J. Welch, Esq. ....	5	1 2	375 T	28·06	166
D Redhill (Sid Court) .....	Miss Janvrin .....	5	1 0	290	30·25	208
D Nutfield Priory .....	Mrs. Fielden .....	8	1 2	468 A	26·18	205
D „ „ .....	Mr. J. Moffatt .....	8	1 2	431 T	26·82	196
D „ (Holmesdale) .....	C. Trentham Maw, Esq.	8	3 0	500 T	25·00	184
D Blechingley House .....	Rev. Canon Barwell ...	5	1 0	550 A	28·29	180
D Betchworth (Sandhills) .....	C. J. Whittington, Esq.	8	3 0	250 T	26·02	158
D „ (The Holmes) ..	F. R. Rushton, Esq. ...	5	0 8	322 T	31·28	191
Reigate (Hatherlow Observatory)	S. T. Klein, Esq. ....	5	0 9	375 A	26·51	176
Dorking (High Ashurst) .....	Mr. G. Bond .....	5	3 0	550	26·08	...
D Merstham (Rockshaw Lodge) ...	F. C. Bayard, Esq. ...	5	1 0	475	25·89	155
D§ Upper Gattou .....	F. Druce, Esq. ....	5	1 0	601	28·80	187
Headley (The Hurst) .....	F. C. Bayard, Esq. ...	5	1 3	450	29·69	...
D Walton-on-the-Hill (Shirley)...	E. P. Hawthorn, Esq....	5	0 6	650	27·99	157
D Caterham Reservoir .....	A. E. Cornwall-Walker, Esq.	5	1 0	705 A	28·17	168
D Leatherhead (Downside) .....	A. Tate, Esq. ....	5	1 0	250	27·15	167
D Chaldon Rectory .....	F. C. Bayard, Esq. ...	5	1 0	542	28·11	163
D Chipstead (Shabden Park) .....	„ „ „ .....	5	1 0	550	28·64	183
D Caterham Asylum .....	Dr. P. E. Campbell ...	5	1 0	610 A	29·48	187
D „ Valley (Bradenhurst) .....	Henry Haes, Esq. ....	5	1 0	600 B	28·80	189
D Warlingham (The Larches) .....	Mrs. B. F. Harris .....	5	1 0	615	28·33	208
D§ „ (Redvers Road) ...	R. H. Curtis, Esq. ....	8	1 0	610 T	28·09	182
D „ (Egremont) .....	H. Rogers, Esq. ....	5	1 0	614 B	27·83	187
D Banstead (Burgh Heath) .....	Capt. E. R. Taylor .....	5	1 0	571 T	26·78	172
D Kenley (Place Fell) .....	F. C. Bayard, Esq. ...	5	1 0	300	26·18	158
D „ (Hazelea) .....	Mrs. Carr Dyer .....	5	1 0	281 A	24·83	182
D Ashted (Hill Field) .....	C. F. Howell, Esq. ....	5	1 0	215	26·70	186
D „ (D'Abernon Chase) .....	Sir W. Vincent, Bart..	5	1 0	280 T	25·72	160
D „ (Barnet Wood Lane) ...	Rev. Theodore E. R. Phillips	5	1 0	175	23·68	178
D „ (Oakfield Road) .....	C. Candler, Esq. ....	5	1 6	160 T	24·72	161
D Cobham (Hatchford Park) .....	Sir H. B. Samuelson, Bart	8	1 0	170	24·16	...
Banstead (The Hall) .....	F. C. Bayard, Esq. ...	8	1 0	480	26·26	...
„ (Basing House) .....	„ „ „ .....	8	1 0	456	24·76	...
D „ (Benhillton) .....	„ „ „ .....	5	1 3	125	21·47	166
D Chelsham (Fairchildes) .....	A. S. Daniell, Esq. ...	8	1 0	600 T	24·89	...

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

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain.	Days with -01 or more recorded.
		Diameter	Height Above Ground	Height Above Sea Level	1907	
		in.	ft. in.	feet.	inches.	
EAST SURREY—(con.)						
Chelsham (Fairchildes) .....	Mr. G. Mansfield .....	5	0 10	600 T	25·03	...
d Epsom (Ashley Road) .....	Spencer C. Russell, Esq. ....	5	1 0	161 T	28·24	214
„ (Water Works) .....	W Vaux Graham Esq CE	5	3 1	149 A	23·31	...
d Sanderstead (Red House) .....	F. C. Bayard, Esq. ...	5	1 0	320	23·75	189
d Weybridge (Burcote) .....	C. Sanger, Esq. ....	5	0 9	120	22·04	169
d Purley (Riddlesdown Road) No.1	J. Edmund Clark, Esq. ....	5	1 0	365 T	25·10	195
d „ „ „ „ No.2	„ „ „ „	5	1 0	365 T	25·30	195
d „ (Pumping Station) .....	A. E. Cornwall-Walker, Esq. ....	5	1 0	215 A	25·50	165
d „ (Peaks Hill) .....	T. F. Parkinson, Esq. ...	8	1 0	360 T	32·39	170
d Sanderstead (Beechwood Road)..	E. Alexander, Esq. ...	5	0 10	370	23·26	171
d Esher (Sewage Works) .....	F. C. Bayard, Esq. ...	5	1 0	42 A	21·24	154
d South Croydon (Bramley Hill)..	H. R. Wise, Esq. ....	5	1 0	306	24·62	187
d „ „ (Avondale Road)	Dr. G. J. Hinde, F.R.S. ....	5	1 0	225 T	25·92	204
d Addington (Hares Bank) .....	F. C. Bayard, Esq. ...	8	1 0	331 A	24·71	183
d† „ Hills Reservoir .....	„ „ „	8	0 9	473 A	25·41	213
d Wallington (Cotswold) .....	„ „ „	5	4 1	140 A	23·90	188
„ „ „ „	„ „ „	8	1 0	140 A	23·44	193
d Sutton (Water Works) .....	W. Vaux Graham Esq. CE	5	1 6	166 A	21·83	164
d „ (Sewage Works) .....	C. C. Smith, Esq., C.E.	8	1 0	94 A	22·88	180
d Carshalton (Sewage Works) .....	Baldwin Latham Esq CE	5	1 0	118 A	21·80	163
d§ Beddington (Riverside) .....	F. C. Bayard, Esq. ...	5	1 0	120	23·09	171
d Croydon (Waddon New Road)..	G. Corden, Esq. ....	5	1 0	146	23·52	170
d „ (Woburn Road) .....	A. Malden, Esq. ....	5	1 6	182	21·84	162
d „ (Park Hill Rise) .....	H. F. Parsons, Esq., M.D. ....	5	1 3	240	21·97	168
d „ ( „ „ House) .....	Baldwin Latham Esq CE	8	1 0	265 A	25·30	187
Worcester Park (Parkside) .....	A. Vaughan Pott, Esq. ....	5	1 0	80	20·09	...
„ „ (Manor Lodge) .....	F. C. Bayard, Esq. ...	5	1 9	120	21·96	...
d Beddington Corner (Millgreen Rd)	„ „ „	5	5 0	77	22·39	164
d† Surbiton (Seething Wells) ...	Met. Water Board .....	5	0 10	34 A	21·93	176
d „ (Vronvelin) .....	F. J. Barclay, Esq. ....	5	1 0	50	22·92	177
„ (Tandridge House) ...	Charles Price, Esq. ...	5	0 10	...	23·05	164
d South Norwood (Woodvale) .....	F. C. Bayard, Esq. ...	5	1 0	216	22·10	184
d† West Molesey .....	Met. Water Board .....	5	1 0	32 A	22·43	164
New Malden Sewage Works ...	F. C. Bayard, Esq. ....	5	1 0	45	19·57	...
d „ „ (Edenfield) .....	W. J. Carter, Esq. ....	5	1 0	40 T	21·99	174
d Kingston (County Hall) .....	E. Underwood, Esq. ...	5	0 9	31 T	23·21	161
d „ Sewage Works .....	F. C. Bayard, Esq. ...	5	1 0	25	24·27	174
d „ (Union Street) .....	Mr. T. Davis .....	8	3 0	26	21·39	165
Norwood (Auckland Road) .....	Miss J. Cooper .....	5	1 5	230 T	20·05	159
d Anerley (Town Hall) .....	H. W. Longdin, Esq. C.E.	5	1 6	120 T	20·57	155
d Wimbledon (Raynes Park) .....	C. H. Cooper, Esq., C.E.	5	1 0	50 A	21·42	151
d „ (Kingston Road) ..	H. A. Marshall, Esq. ....	5	1 0	54 A	23·90	182
„ (Park View) .....	S. Single, Esq. ....	5	1 0	150	23·61	160
d „ (Sewage Works) .....	C. H. Cooper, Esq., C.E.	5	1 0	55 A	20·32	151
d „ (The Downs) .....	F. C. Bayard, Esq. ....	5	1 1	162 A	24·20	182
„ Common (The Priory) ..	H. J. Hunt, Esq. ....	5	0 6	172	23·40	...
d Richmond (The Terrace) .....	F. C. Bayard, Esq. ...	8	1 6	109	21·86	163
d „ (The Old Palace) .....	Rev. A. Welsh Owen ...	8	0 9	...	22·77	158

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

	STATIONS.	AUTHORITIES.	Rain Gauge.				Depth of Rain.	Days with "or more recorded.
			Diameter	Height Above Ground.		Height Above SeaLevel	1907	
			in.	ft.	in.	feet.	inches.	
<b>EAST SURREY—(con.)</b>								
B†	Richmond (Kew Observatory) ...	Dr. C. Chree, F.R.S. ...	11	1	9	19 ⅞	23·85	182
B	Kew (Kew Gardens Road) .....	Dr. L. Burrell .....	5	1	2	19	25·62	187
B	" (Cumberland Gardens).....	F. C. Bayard, Esq. ....	...	...		...	25-24	165
<b>WEST KENT.</b>								
	Hawkhurst (Hensill).....	F. Ross Thomson, Esq..	5	2	0	200	25·87	...
B	" (Sandhurst Rectory)	Rev. G. Ridout .....	5	1	3	208 ⅝	27·19	174
	Tenterden (Summerhill) .....	Mrs. Wilkin .....	8	1	0	150 ⅝	25·59	180
	" (" ) .....	" "	5	1	0	150 ⅝	26·28	180
	Benenden (Pullington) .....	Major H. Neve .....	5	1	0	330	28·66	205
B‡	Tenterden .....	J. Ellis Mace, Esq. ....	8	1	5	190 ⅝	25·27	187
B‡	" Snowdon .....	" "	8	1	5	190 ⅝	24·86	167
	" (West Cross) .....	J. Munn Mace, Esq. ...	5	1	0	150 †	25·07	...
	" (Ashbourne Mills) .....	A. Pinyon, Esq. ....	5	1	6	45 †	24·81	...
	Woodchurch (The Rectory) .....	Rev. A. Welch .....	5	5	0	107 †	26·29	...
	Cranbrook (Swattenden) .....	Miss Appach .....	8	1	2	350 †	26·35	...
	" (Hartley) .....	G. Pile, Esq. ....	5	4	0	405 †	27·18	...
	" .....	" "	5	1	0	290	27·83	172
	Biddenden (Sandpit Wood) .....	J. Ellis Mace, Esq. ...	5	1	0	222 †	24·56	..
B	High Halden Rectory .....	Rev. W. H. Rammell...	5	1	0	151 †	22·47	187
	Goudhurst (Scotney Castle).....	E. W. Hussey, Esq....	5	4	4	203 ⅝	27·89	...
	" (Maypole) .....	G. Parker Hinds, Esq..	8	1	8	412	27·47	...
	" (Brandfold).....	Mr. C. Markwell .....	5	2	0	200 ?	28·68	179
B	" (Gore Court) .....	J. A. Druce, Esq. ....	5	1	0	196	27·25	188
	Cranbrook (Camden Lodge).....	Mr. A. Habbits.....	5	1	0	276 †	26·73	...
B	Horsmonden (Broad Ford House)	Mrs. Maude.....	5	1	0	96 ⅝	26·15	205
B	Tunbridge Wells(LangtonGreen)	W. L. Sutton, Esq. ...	5	1	0	380	24·59	153
B‡	" , (Bredbury) .....	F. G. Smart, Esq. ....	5	1	0	418 †	28·55	179
B	" , (Courtlands)(R)	E. Weldon, Esq. ....	8	5	6	470 ⅝	28·56	171
B	" , (Mt.EphraimHo.)	Ivan T. Bertram, Esq..	5	1	0	423 †	26·04	153
B†	Speldhurst Rectory .....	Rev. D. D. MacKinnon	5	1	0	320 †	23·60	186
B†	" (Etherton Hill).....	E. W. Winton, Esq....	5	1	5	288 ⅝	26·00	162
B	Tunbridge Wells(Pembury).....	W.H.Maxwell.Esq.C.E.	8	1	8	196 ⅝	24·11	157
B	Southborough (The Hall) .....	Rev. G. A. Robins.....	5	3	0	400 †	26·88	158
B	Edenbridge (Falconhurst) .....	Rt.Hon.J.G.Talbot,MP	5	0	6	400	26·63	171
	Tonbridge (Colebrooke)......	W. A. Smith, Esq. ....	5	0	10	350 †	25·64	166
	" (" )Snowdon .....	" " " " .....	5	1	0	350 †	24·74	166
B	Edenbridge (Markbeech) .....	Rev. J. T. Pearse .....	5	1	0	320 †	23·65	166
	Staplehurst (Lindridge Farm)...	J. Norris, Esq. ....	5	1	4	310 ⅝	27·44	...
	Tonbridge (Penshurst Place) ..	Lord De Lisle.....	5	1	6	150 ?	28·66	...
B	" (Park) .....	Mr. J. M. Sturgess ...	5	0	9	265 †	24·97	184
B	" (Mabledon Park).....	J. F. W. Deacon, Esq..	5	1	2	190 ?	25·19	156
	" (Brooklands) .....	G. J. Kimmins, Esq....	5	0	6	120 ⅝	24·32	156
	" (Ingleside) .....	Arthur H. Neve, Esq..	5	0	11	160	24·59	173
B	" (Somerhill Estate Off.)	C. J. G. Hulkes, Esq... D	5	1	0	150 †	25·10	175
B	" (Beech Hurst) .....	W. C. Punnett, Esq....	5	1	6	102 ⅝	24·20	167
	" (" " )Snowdon .....	" " " " .....	5	1	6	102 ⅝	24·12	167
	" (" " ) .....M	" " " " .....	8	4	0	105 ⅝	23·03	...

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

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain.	Days with $\geq 0.1$ or more recorded.
		Diameter	Height Above Ground		Height Above Sea Level	1907
		in.	ft.	in.	feet.	inches.
WEST KENT—(con.)						
D Hadlow (Golden Green).....	F. W. E. Shrivell, Esq.	5	1	0	100	22.50 174
Edenbridge (Crockham Hill) ...	E. C. Ouvry, Esq. ....	5	1	0	705 T	24.63 ...
§Hildenborough (Hollenden Ho.)..	Meteorological Office...	8	1	0	161	22.05 ...
D Ulcombe Place .....	A. O. Walker, Esq. ...	5	1	0	350 T	22.51 169
D Maidstone (Linton Park) .....	Mr. C. Pratt .....	5	0	8	...	22.23 163
D " (Rumwood, Langley) .....	W. S. Forster, Esq. ...	5	1	9	354	22.86 181
D " (Lower Tovil) .....	Lawrence Green, Esq..	5	1	0	30 L	19.31 162
D " (W.W., Barming) ...	W. J. Ware, Esq., C.E.	8	1	0	30 T	23.35 171
D " (Long Rede, " ) ...	Rev. T. W. Carr .....	8	3	2	280 T	21.50 ...
D† " (Brenchley Gardens)..	T.F. Bunting, Esq., C.E.	5	0	9	50	22.04 180
D† " (Borough Surveyor's Office)	" " "	8	8	0	32 T	21.95 183
D East Malling (Broadwater) .....	C. B. Mercer, Esq. ...	5	1	6	169	25.24 189
D West Malling (St. Leonards) ...	G. Phillips, Esq. ....	5	1	0	...	24.92 175
D† Detling (The Croft) .....	R. Cooke, Esq. ....	5	1	2	330 T	24.58 203
Maidstone (Allington) .....	Messrs. G. Bunyard & Co.	5	1	6	150 B	22.72 ...
D Westerham (The Fishponds) ...	Met. Water Board.....	5	1	0	380	24.58 155
D " Hill Estate .....	" " "	5	1	0	539	24.49 162
D† Sevenoaks (River Hill).....	Lt.-Col. J. M. Rogers, DSO	8	4	0	535 T	22.94 169
D " (Plaxtol) .....	H. Stonham, Esq. ....	5	3	0	300 T	24.60 155
" (Bitchet Wood) .....	Admiral G. S. Bosanquet	5	1	0	580 T	26.80 ...
" (Dartford Road) .....	W. W. Wagstaffe, Esq.	5	...	...	404 T	25.06 166
" (Seal, St. Lawrence Res.)	T. W. Heath, Esq., C.E.	8	1	0	665 T	25.32 ...
" ( " Oak Bank Res.)	" " "	8	1	0	550 T	26.03 ...
" ( " ) .....	" " "	5	1	3	319 T	24.53 ...
" (Kemsing Pumping Sta.)	" " "	5	1	0	292 T	25.68 ...
D " (Chevening Gardens)...	Mr. C. Sutton.....	5	1	0	360	26.27 168
D Ightham (Belmont Lodge) .....	Burleigh D. Kilburn Esq	5	1	4	380 T	27.26 206
Lusted [Tatsfield] .....	Mrs. Owen Wynne ...	5	1	0	730 T	23.49 ...
† Knockholt (Kent Waterworks)..	Met. Water Board.....	5	24	6	812	22.46 ...
† " ( " " ) .....	" " "	5	1	0	785	25.45 ...
Otford (Beechy Lees) .....	Mr. R. Edwards.....	5	0	10	480 T	25.09 169
D Farnborough (Downe Lodge) ...	F. Lander Muirhead, Esq	5	0	8	555 T	26.38 169
D† Halstead Rectory .....	Rev. F. H. Deane .....	5	1	0	539 T	27.32 234?
Downe (The Rookery) .....	Hon. Evelyn Hubbard.	5	1	0	488 T	22.65 ...
D Keston.....	F. C. Bayard, Esq. ...	...	...	...	...	24.67 162
D West Wickham (Wickham Court)	" " "	5	1	2	300	26.27 155
Hayes (Hayes Place).....	" " "	8	1	0	350	23.34 ...
D† Orpington (Kent Waterworks)...	Met. Water Board.....	5	1	0	220	22.06 159
D Chatham (Luton W.W.) .....	W. Coles Finch, Esq....	5	3	0	88 T	23.13 161
Meopham .....	Jesse Garratt, Esq. ...	5	1	1	290 T	22.05 166
D Farningham Vicarage .....	Rev. L. A. Williams...	5	0	6	117 T	23.21 170
D Rochester (Knights Place) .....	J. Pye, Esq. ....	5	3	0	320	24.33 208
Strood Water Works .....	W. Banks, Esq., C.E..	5	3	0	112 T	21.67 181
D Frindsbury (The Shrubbery) ...	Warwick Stunt, Esq. ..	5	1	6	150	21.58 152
" (Manor Farm) .....	F. Baker, Esq. ....	5	1	0	100	22.32 ...
D Bromley Common (Elmfield) ...	Rev. J. P. Faunthorpe..	5	0	9	240 T	22.04 174
Bickley (Sunnydene).....	J. Wrench Towse, Esq.	5	1	0	220 T	22.44 ...

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

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain.	Days with $\frac{1}{10}$ or more recorded.
		Diameter	Height Above Ground	Height Above Sea Level	1907	
		in.	ft. in.	feet.	inches.	
WEST KENT—(con.)						
Bickley (The High Field).....	J. Batten, Esq. ....	5	1 2	295	23·38	...
D Bromley (The Palace) .....	F. C. Bayard, Esq. ...	5	1 0	187	22·56	169
„ (Lansdown Road) .....	C. A. Case, Esq. ....	5	1 0	220	22·65	...
„ (Orchard Road) .....	Miss Scott .....	5	1 0	230	22·05	...
D „ (Rodway Road) .....	E. Kinder, Esq. ....	...	...	...	23·23	168
D „ (Kinnaird Avenue) ...	C. T. Drew, Esq. ....	8	2 0	300	22·44	173
Shortlands (The Gables) .....	A. M. Tapp, Esq. ....	5	4 0	200	21·96	...
Chislehurst (Foxbury) .....	H. F. Tiarks, Esq. ....	8	4 6	250	22·27	192
„ (Hawkwood) .....	F. C. Bayard, Esq. ....	5	1 0	300	20·44	...
D Gravesend (Thong) .....	C. H. Scriven, Esq. ...	5	1 0	255 B	23·56	186
D Frindsbury (Stonehouse) .....	E. W. Wood, Esq. ....	5	1 0	20	20·81	152
D Southfleet (Kent Waterworks)...	Met. Water Board .....	5	1 0	82	21·16	178
D Wilmington ( „ „ )...	„ „ „ „ .....	5	1 0	25	20·69	153
D Sidecup (Park Road) .....	S. A. Sharman, Esq. ....	5	1 0	230 B	22·83	191
„ (Station Road) .....	Clayton Beadle, Esq. ....	5	1 0	...	23·83	...
Dartford (West Hill House).....	F. C. Bayard, Esq. ...	5	1 3	100	22·26	...
Higham (Oakleigh) .....	C. Lake, Esq. ....	8	1 2	25	18·65	...
D Cooling (Broomy Farm) .....	Mr. J. Filmer .....	5	1 6	10	22·10	152
D Hoo St. Mary .....	H. Pye, Esq., Junr. ...	5	5 6	146 T	19·92	165
D Erith (Crossness) .....	MFitzmaurice EsqCMG	14	0 6	16 A	19·69	148
EAST KENT.						
§ Dungeness .....	Meteorological Office ...	8	1 3	21	21·86	...
D Hythe (Hillcrest Road) .....	J. B. Jordan, Esq. ....	5	1 0	190 T	24·45	168
D „ (Sandling Park).....No. 1	Lawrence Hardy EsqMP	8	1 0	268	27·56	157
D „ ( „ „ „ ).....No. 2	„ „ „ „ .....	...	1 0	268	27·18	157
D „ (Hillhurst Farm) .....	G. F. Deedes, Esq. ...	5	1 6	280 T	27·12	180
D Sandgate .....	R. A. Skelton, Esq., C.E.	5	1 0	52 A	21·48	157
D § Folkestone (Sanatorium) .....	M. Yunge Bateman, Esq.	5	1 0	102 A	25·10	170
D „ (Surrenden Road) ...	J. Duncan Walker, Esq.	5	1 0	160	21·78	158
D „ (Radnor Park) .....	J. W. Stainer, Esq. ...	5	4 8	129 T	22·44	156
D „ (Cherry Gardens) ...	H. Turner, Esq. ....	5	1 6	230 A	26·55	184
D Sellindge (Penmain) .....	late F. H. Perkins, Esq.	5	1 1	200	25·61	181
Folkestone (Capel Lodge).....	E. Norton, Esq., M.D.	5	1 0	470 T	27·68	173
D „ (Lower Standen, Capel)	H. Turner, Esq. ....	5	2 11	250 A	27·88	171
D Acrise Park .....	F. A. MacKinnon, Esq.	5	1 6	500 A	35·49	165
D Ashford (Willesborough Rectory)	Rev. A. L. Brine .....	5	...	175	24·72	180
D „ (Oakwood) .....	H. F. Horsnaill, Esq. ...	5	1 4	170 T	25·88	166
Dover (Water Works) .....	W. C. Hawke, Esq., C.E.	5	1 6	200 A	25·29	...
Kearsney (Chilton Farm) .....	„ „ „ „ .....	5	1 6	127 A	30·56	...
Deal and Walmer W. W. ....	M. A. Mantle, Esq. ....	12	1 0	110 A	25·09	...
D „ „ „ „ „ .....	„ „ „ „ „ .....	5	1 0	110 A	25·35	179
„ Sewage Works .....	E. Kent Scientific Soc.	5	1 0	11	25·02	...
D Wye (Bilting House) .....	W. W. Knight, Esq. ....	5	1 3	158	26·75	163
Tilmanstone (Danefield) .....	Mrs. Rice .....	6	1 1	130 ?	25·51	...
D Eastry .....	L. A. Fawcett, Esq. ....	5	0 10	85 T	24·44	169
D Sandwich (Upton House, Word)	W. Elwin Napier, Esq.	5	1 0	32	24·06	157
Wingham (Crockshard).....	J. E. Elgar, Esq. ....	5	1 0	50 T	23·60	...

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

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain.	Days with '01 or more recorded.
		Diameter	Height Above Ground	Height Above Sea Level	1907	
		in	ft. in.	feet.	inches.	
EAST KENT—(con.)						
Wingham (Margate W.W.) .....	Mr. W. R. Hosking ...	5	1 0	138 $\pi$	23.83	...
d Selling (Luton) .....	F. Ivo Neame, Esq. ...	5	4 9	263 $\pi$	24.51	170
d „ (Harefield) .....	Sidney Neame, Esq. ...	5	4 6	219 B	26.61	201
d Sandwich (St. George's Golf Club)	W. Ryder Richardson Esq.	6	1 1	3	20.93	164
d Littlebourne House .....	T. M. Patterson, Esq. ...	5	1 6	37	22.61	154
Canterbury (Irrigation Works) ..	C. Terry, Esq., C.E. ...	5	2 6	15 $\pi$	23.06	164
„ (Medical Hall) .....	A. Lander, Esq. ....	5	...	40	22.24	...
„ (Sturry Road) .....	E. Kent Scientific Soc. ...	...	...	15	24.45	...
Sittingbourne (Sharsted Court) ..	A. J. Rayfield, Esq. ...	5	1 6	287 T	19.79	...
Canterbury (St. Thomas' Hill) ..	J. Spillett, Esq. ....	5	1 0	230 $\pi$	24.78	...
„ ( „ „ ) .....	E. Kent Scientific Soc. ...	...	...	95	21.92	...
Ospringe (Lorenden) .....	Walter C. Stunt, Esq. ...	5	1 2	180 B	21.94	...
Teynham (New Gardens) .....	J. F. Honeyball, Esq. ...	5	1 5	20 $\pi$	18.67	...
d Faversham (Uplees Marshes) ...	F. G. Palmer, Esq. ...	5	4 4	9 $\pi$	16.18	172
Minster (Gas Works) .....	W. Thomson, Esq., C.E.	6	1 0	60 T	21.14	...
d Broadstairs (Providence House) ..	Cecil Hamersley, Esq. ...	5	2 0	50 T	22.98	167
d Whitstable (Tankerton) .....	F. Gaster, Esq. ....	8	0 11	73	17.18	152
Herne Bay (Water Works) .....	G. J. Lavel, Esq. ....	5	0 6	122 T	18.91	...
d Reculver .....	Allington Collard, Esq. ...	5	5 2	27 T	17.91	154
d § St. Peter's .....	Rev. H. C. V. Snowden	5	0 9	140 $\pi$	22.58	169
d „ „ Court .....	A. J. Richardson, Esq. ...	5	0 8	135 T	23.47	174
d Margate (Westlands) .....	J. Stokes, Esq. ....	5	1 0	55	20.40	171
Kingsgate (White Ness) .....	Mr. T. Tullett .....	5	3 6	98 L	23.14	167
† Sheppey (Old Rides, Eastchurch)	H. C. Warren, Esq. ...	5	2 0	40 T	19.57	...
WEST SUSSEX.						
§ Bognor .....	Royal Meteorological Soc	8	1 0	15	23.78	193
„ (Lidsey Lodge) .....	H. Neale, Esq. ....	8	1 2	25	27.30	150
Littlehampton (Dorset House) ..	G. H. Beecheno, Esq. ...	5	2 0	30	21.64	...
d § Worthing (Corporation Obs.) ..	A. G. R. Cameron Esq MD	8	1 0	18	21.78	158
West Thorney (The Manor House) ..	H. Padwick, Esq. ....	5	1 0	23 T	25.49	...
d Arundel (Yapton) .....	Mr. G. Harrison .....	5	1 0	24 $\pi$	24.52	151
d „ „ (Drove Farm) ..	„ „ „ .....	5	1 0	14 $\pi$	23.61	152
Angmering .....	Rev. J. B. Orme .....	5	0 9	44	22.27	...
d Tortington .....	Major J. A. Travers ...	5	1 0	25 $\pi$	26.81	157
d Chichester (Westgate Meadow) ..	G. A. Tyacke, Esq. ...	8	0 6	40	26.55	167
Arundel (Patching) .....	J. Drewitt, Esq. ....	5	1 0	180	25.52	153
d „ „ „ .....	Mrs. Joad .....	5	0 10	130 T	25.97	160
d West Bourne [Emsworth] .....	Rev. L. B. Birkett .....	5	0 8	50 T	30.96	184
d Funtington .....	J. A. Greenwood, Esq. ...	5	1 0	95 T	30.87	165
d West Stoke Rectory .....	Rev. W. F. Shaw .....	5	1 0	176 T	32.85	150
Chichester (Goodwood Gardens) ..	Mr. F. Brook .....	5	1 3	200 ?	34.21	192
d Steyning .....	Col. Ingram .....	5	1 0	80 T	29.57	154
„ (Crescent Road) .....	Mr. H. J. Hide .....	5	1 0	80 T	28.84	...
d Chichester (Watergate) .....	W. M. Christy, Esq. ...	5	1 0	236 T	34.39	197
„ (West Dean Park) ...	Mr. W. H. Smith .....	10	1 6	190 T	38.03	...
„ (Chilgrove) .....	J. W. Woods, Esq. ...	5	0 6	284 T	36.15	...

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

STATIONS.	AUTHORITIES.	Rain Gauge.				Depth of Rain.	Days with .01 or more recorded.
		Diameter	Height Above Ground		Height Above Sea Level	1907	
		in.	ft.	in.	feet.	inches.	
WEST SUSSEX—(con.)							
Sutton (Coldharbour) .....	Mr. J. Campbell.....	5	2	0	...	32·52	...
Midhurst (Linch Farm, Bepton) ..	G. Eames, Esq. ....	5	0	8	160 †	35·39	...
„ (Fairfield, Bepton) ...	Major W. A. Chauncey..	5	0	8	154 †	30·92	159
D „ (Oakhurst).....	Miss Jebb .....	5	1	0	200	33·36	174
D Compton [Petersfield] .....	Rev. H. M. Langdale...	5	1	0	255 †	34·57	193
D Petworth Park .....	Mr. E. W. Pull.....	5	1	0	182 †	32·40	162
Cowfold (Maple Bank) .....	Mr. S. Ford .....	5	1	6	373	26·82	...
Tillington (River House) .....	Lady Cunliffe.....	5	1	0	230	29·80	164
Midhurst (Lodsworth) .....	Lt.-Col. E.O. Hollist, RA	8	1	3	220 †	28·55	153
D „ (Borden Wood).....	E. G. Lamb, Esq., M.P.	8	1	0	260 †	34·00	188
„ (Hollycombe) .....	J. C. Hawkshaw, Esq..	8	6	6	550	34·61	...
Billingshurst (Hawkhurst Court)	B. de F. Osmaston, Esq.	5	1	6	120	25·31	...
D Horsham (Denne Park).....	Mr. H. Harris .....	5	4	0	246 †	26·91	152
Slinfold (Rapkyns) .....	W. Duncan Knight, Esq.	5	1	0	170	25·22	...
Fernhurst (Blackdown House)...	late Sir F. Philipson Stow	5	1	10	488 †	30·29	...
§ Horsham (Christ's Hospital).....	Royal Meteorological Soc	5	1	0	161	24·84	177
† „ (Manor House) .....	H. Padwick, Esq. ....	8	0	10	140 †	27·35	163
D† „ (Richmond Road) .....	M. L. Craven, Esq. ...	5	1	2	170	28·06	182
D „ (Leonardslee) .....	Mr. W. A. Cook.....	8	1	0	365	25·94	176
D† „ (Wimblehurst) .....	Miss E. M. Alleard ...	5	1	0	195 †	26·63	183
Lynchmere (Shottermill) .....	Rev. C. Holland.....	5	4	0	450	37·61	...
EAST SUSSEX.							
† Beachy Head .....	Miss Brodie Hall.....	5	1	0	515 †	19·67	...
D† Eastbourne (Wilmington Square)	S. R. Henderson, Esq..	5	1	0	36	26·40	177
D§ „ (Osborne House) ...	Miss Brodie Hall .....	5	1	0	12 †	27·75	172
D „ (Glenthorne) .....	Miss Woodd .....	8	1	6	86 †	26·06	179
„ (Arundel Road) .....	J. C. Wright, Esq.....	5	0	4	70	28·45	...
D „ (Cemetery) .....	Miss Brodie Hall .....	5	4	0	160 †	23·64	148
D „ (Staveley Cross) ...	J. Weston, Esq. ....	5	1	6	110 †	26·91	196
Seaford .....	B. A. Miller, Esq., C.E.	5	1	6	44 †	21·92	...
D West Dean .....	F. Stileman, Esq., C.E.	8	1	0	112 †	23·00	168
D Jevington (Church Farm) .....	„ „ „	8	0	9	261 †	35·63	153
D Litlington (Plough & Harrow Inn)	„ „ „	8	1	0	19 †	25·32	...
D§ Brighton (Old Steyne) .....	A. Newsholme, Esq., MD	5	1	0	32 †	20·52	166
D „ (W.W. Goldstone Bottm)	J. Johnston, Esq., C.E.	8	0	7	140 †	22·98	158
D „ ( „ Lewes Road)...	„ „ „	8	3	6	88 †	24·36	154
D „ ( „ Upper Portslade)	„ „ „	8	1	3	167 †	23·12	155
„ (Upper Roedale).....	G. Berry Hamlin, Esq.	5	1	0	385 †	25·90	...
D „ (W.W., Patcham) .....	J. Johnston, Esq., C.E.	5	1	6	207 †	27·43	178
D „ ( „ Race Hill) ...	„ „ „	8	1	0	466 †	25·19	159
D† Bexhill (Marina) .....	Mr. G. Brisley .....	8	1	0	27	24·64	166
§ St. Leonards (West Marina) ...	H. Colborne, Esq.....	8	1	0	21 †	24·87	168
§ „ „ (Gensing Gardens).	„ „ „	8	1	0	179 †	23·34	177
D Polegate (Alciston) .....	R. Matthews, Esq.....	5	2	0	172 †	31·16	189
Hailsham .....	Rev. F. Clyde Harvey..	5	1	0	105	29·61	...
D Falmer .....	R. R. Verrall, Esq. ...	5	4	0	312 †	30·41	189
D „ (Brighton W.W.).....	J. Johnston, Esq., C.E.	8	1	8	209 †	24·81	177



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

STATIONS.	AUTHORITIES.	Rain Gauge.				Depth of Rain.	Days with <sup>1</sup> / <sub>10</sub> or more recorded.
		Diameter	Height Above Ground		Height Above Sea Level	1907	
		in.	ft.	in.	feet.	inches.	
EAST SUSSEX—(con.)							
§ Lewes (Little Dean) .....	Meteorological Office ...	8	1	0	58	29·03	214
D „ (Bedford Lodge) .....	Mrs. Kemp ..	5	1	0	85 T	26·90	195
D Hailsham (Magham Down) .....	W. E. Bear, Esq. ....	5	1	2	90 T	26·83	158
Hurstmonceux Place .....	H. A. James, Esq. ....	5	1	8	83 A	25·71	...
D Ringmer (Downlands) .....	late R. R. Davis, Esq. ..	5	0	8	120	29·48	153
D Hastings (Newgate) .....	(R) P. H. Palmer, Esq., CE	8	5	6	240	24·68	144
„ (Filsham Res.) .....	H. Colborne, Esq. ....	5	0	10	91	25·08	...
„ (Halton Res.) .....	„ „ „ .....	5	0	10	301	25·13	...
„ (Fairlight Res.) .....	„ „ „ .....	5	0	10	510	26·47	...
§ „ (Cemetery) .....	„ „ „ .....	5	0	8	500	26·86	173
„ (High Beech Hollington) ..	Miss Lewis .....	5	1	0	320 T	26·25	191
D „ (Guestling Rectory) ...	Rev. E. N. Bloomfield.	5	1	5	125 A	27·06	162
Hassocks (Pyecombe) .....	Mr. F. S. Mitchell ....	5	0	7	392	27·54	...
Clayton Rectory .....	Rev. T. H. R. Shand...	5	1	6	201 T	31·49	162
Hurstpierpoint (Danny Park) ..	Mr. J. J. Bunney .....	8	1	3	180	34·64	...
D Winchelsea (The Friars) .....	late Maj. R. C. Stileman	5	1	2	115 T	23·57	156
D Horeham Manor .....	Miss P. C. Harrison ...	5	0	9	250	28·23	188
D „ Grange .....	W. F. Beauford, Esq. ..	5	1	2	260 T	29·54	165
D Isfield Place .....	Major H. King .....	5	1	0	51	26·21	166
„ „ .....	„ „ .....	5	1	0	51	25·94	...
„ „ .....	„ „ .....	5	1	0	51	25·21	...
D Battle (Whatlington) .....	Miss H. Gripper .....	5	1	3	90 T	29·76	167
Udimore (The Hammonds) .....	J. G. Mair-Rumley, Esq.	8	1	0	144 A	24·69	153
Playden (East Guldeford Lane).	G. Pile, Esq. ....	5	1	0	15	21·40	...
Burgess Hill (Ote Hall) .....	Mrs. Woods .....	5	1	6	...	27·25	...
Uckfield (Agricultural College)...	Prof. S. Allinson Woodhead	8	1	0	166 A	25·27	...
D Heathfield (Tottingworth Park).	Mr. J. Masson .....	5	1	0	500 T	31·26	167
D Bolney Vicarage .....	Rev. T. Austen Holcroft	5	0	11	99 T	25·32	172
D Lindfield (Massetts Place) .....	Nigel V. Combe, Esq. ..	5	1	0	131 A	25·70	175
D Uckfield (Sheffield Park) ...	Mr. W. T. Moore .....	5	1	0	150	25·76	180
D Haywards Heath (S. Wilfrid's Par.)	Mr. J. E. Shirley .....	5	1	0	300	26·26	167
D „ „ (Abbots Leigh) ..	Mr. R. Inglis .....	5	1	0	190 T	26·39	163
D Robertsbridge (Salehurst Vic.) ..	Rev. E. J. Sing .....	5	0	9	110 A	29·54	201
D Buxted Park .....	Mr. H. C. Prinsep .....	8	1	0	94	27·84	179
„ (Strawberry Hall) .....	C. Rintoul, Esq. ....	5	1	0	180	27·01	...
D Lindfield (Wood Knoll) .....	L. Weedon, Esq. ....	5	1	0	188 A	26·55	197
D Mayfield (Five Ashes) .....	Miss Emily Aston .....	5	1	8	300	29·60	207
D Bodiam (South Park) .....	L. M. Jackson, Esq. ...	5	1	1	208 T	26·55	178
D Etchingham (Shoyswell Manor).	Isaac Seligman, Esq. ...	4	1	9	250 T	31·90	168
D Nutley Vicarage .....	Rev. H. J. Peckham ...	5	1	0	386 T	27·14	198
D „ (The Hall) .....	Miss Cook .....	5	0	10	417	27·65	193
„ (Chelwood Beacon) .....	H. Clarke Jervoise, Esq.	5	1	3	530 T	29·65	181
Handcross (Lower Beeding) .....	Leicester M. Reed, Esq.	5	0	10	430 T	28·26	...
D Crowborough (Jarvis Brook) .....	Crowborough Water Co.	5	1	0	325 A	33·01	163
D „ (Uckfield Lodge) ...	J. J. S. Driberg, Esq. ...	8	1	0	796 A	34·80	225
D „ (Te Whare) .....	Miss Hames .....	5	1	0	796 A	34·21	212
Haywards Heath (Brook House)	H. R. G. Clarke, Esq. ..	5	1	0	220	25·66	...
D Ardingly (Lywood House) .....	G. Forrester Scott, Esq.	5	0	9	240 T	25·96	182

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

STATIONS.	AUTHORITIES.	Rain Gauge.				Depth of Rain.	Days with '01 or more recorded.
		Diameter	Height Above Ground.		Height Above Sea Level	1907	
		in.	ft.	in.	feet.	inches.	
EAST SUSSEX—(con.)							
D Balcombe (The Gables) .....	Mr. G. J. Warren .....	8	1	3	352 $\nabla$	29·64	191
D Wadhurst (The Olives).....	Miss Edith Luck .....	5	1	0	380	30·12	193
D Ticehurst (Myskyns).....	E. H. Cartwright, Esq. ....	5	1	0	350 $\nabla$	30·36	228?
„ House .....	Mr. J. D. Jordan .....	5	4	9	423 $\nabla$	28·39	158
„ (Whiligh).....	G. J. Courthope, Esq. ....	5	1	0	440	30·38	183
D Wadhurst (Uplands) .....	Miss M. C. Watson .....	5	1	0	480	31·27	187
D „ (Lower Cousley Wood) .....	F. Wilkin, Esq. ....	5	1	0	416 $\nabla$	26·83	173
D Balcombe (Stockcroft) .....	R. Newton, Esq. ....	5	1	1	341 $\uparrow$	31·15	183
Forest Row (Hindleap Lodge)...	Mr. A. Adam .....	5	1	6	620	25·06	...
„ „ (Charlwood Farm)...	A. Hoare, Esq. ....	5	1	0	250 $\uparrow$	27·94	...
Frant (Eridge Castle) .....	Mr. A. Wilson .....	5	2	0	400	32·93	...
„ (Highfield) .....	C. M. R. Clewe, Esq. ....	5	2	3	413	28·14	...
D Crawley Down (The Grange) ...	T. H. W. Buckley, Esq. ....	5	0	9	430 $\nabla$	29·09	186
Worth (Paddockhurst) .....	Mr. A. B. Wadds .....	5	1	6	500	28·60	...
D „ (South Hill) .....	T. E. Ravenshaw, Esq. ....	8	1	6	558 $\uparrow$	31·93	213?
D East Grinstead (Cranston Road). ..	Mr. G. Mitchell .....	8	2	2	420 $\uparrow$	27·28	177
D Glen Andred [Groombridge] ...	Mrs. Boardman .....	8	1	0	320	29·71	166
Cozleigh [ „ ] ...	Norman W. Grieve, Esq. ....	8	2	0	230	26·15	...
HAMPSHIRE.							
ISLE OF WIGHT.							
D Ventnor (Flint Cottage) .....	J. S. Ineson, Esq. ....	5	1	0	99 $\nabla$	23·76	162
§ „ (Consumption Hospital) ..	Royal Meteorological Soc	5	1	0	81	24·22	177
Chale .....	H. Wray, Esq. ....	...	...	...	...	20·60	...
D Shanklin .....	E. C. Cooper, Esq., C.E. ....	8	1	0	199 $\nabla$	26·10	161
D Sandown (Free Library) .....	C. E. Gilchrist, Esq. ....	8	1	0	15	27·36	179
D† Totland Bay (Aston House).....	J. Dover, Esq. ....	8	1	3	145 $\nabla$	25·80	163
D† Newport (Grammar School) .....	C. D. Vibert, Esq. ....	5	1	0	45	28·04	172
Yarmouth Schools .....	Mr. J. E. Furnage .....	5	1	0	8	24·16	...
Brading (Ryde W. W., Knighton) ..	J. T. Harvey, Esq., C.E. ....	8	2	0	68 $\nabla$	28·27	...
Ryde (Thornton) .....	G. H. Harrison, Esq. ....	5	1	0	144 $\nabla$	24·74	..
D† „ (New Lodge, St. John's Park) ..	Capt. W. A. Dobie .....	5	1	1	147	27·66	173
† „ (Pier Street) .....	T. Cole Flower, Esq. ....	12	9	0	35	28·85	...
D† „ (Police Station).....	C. Mathew, Esq. ....	8	2	0	144 $\nabla$	26·84	162
D† „ (Beldornie Tower) .....	P. Craven Hall, Esq. ....	5	1	0	30 $\downarrow$	24·12	170
D† Wootton (Fernhill) .....	C. G. Brodie, Esq. ....	8	0	6	118 $\uparrow$	29·56	155
East Cowes (Spring Hill) .....	G. Shedden, Esq. ....	5	0	10	121	27·29	166
—							
D Bournemouth (West Cliff) .....	Rev. G. A. Rideout ...	5	1	0	120	31·65	180
„ (Clarendon Court). ..	G. Galpin, Esq. ....	5	1	0	130 $\uparrow$	30·14	...
„ (South Cliff) .....	C. Dales, Esq. ....	5	1	0	41	25·03	183
„ (Pleasure Gardens) .....	„ „ .....	5	1	0	41	31·31	...
„ (Vale View) .....	„ „ .....	5	1	0	145	31·06	182
D „ (Wellington House) .....	Messrs. Primavesi Bros. ....	5	1	0	100 $\uparrow$	28·36	175
D§ „ (Kempsey, Bath Rd.) ..	E. L. M. Colville, Esq. ..	5	1	0	121 $\uparrow$	30·09	177
„ (Bodorgan House)...	Judge Philbrick, K.C. ...	5	1	6	151 $\nabla$	31·26	...
Milford-on-Sea (Salt Grass) .....	A. C. G. Heygate, Esq. ....	5	1	0	6	27·30	...

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

STATIONS.	AUTHORITIES.	Rain Gauge.				Depth of Rain.	Days with 40 or more recorded.
		Diameter	Height Above Ground.		Height Above Sea Level	1907	
		in.	ft.	in.	feet.	inches.	
HAMPSHIRE—(con.)							
D Christchurch (Winkton Lodge)..	Miss Lassell .....	5	1	0	34 $\nabla$	27·27	159
D „ (Heron Court).....	The Earl of Malmesbury	8	0	6	25 $\nabla$	32·00	159
D Lymington (The Salterns) .....	P. A. Ouvry, Esq.....	5	1	0	1	28·73	164
D „ .....	F. Hill Parr, Esq., C.E.	5	1	0	78 $\nabla$	29·77	154
Milton (Wootton Hill) .....	Lt.-Col. R. Harman ...	5	1	0	188 $\nabla$	32·88	172
Portsmouth (Eastney) .....	P. Murch, Esq., C.E....	8	0	9	16 $\nabla$	20·23	...
D§ „ (Victoria Park) .....	Dr. A. Mearns Fraser...	5	1	0	18 $\nabla$	25·33	167
D Hayling Island (Littlemead) ...	Douglas S. Bird, Esq....	5	1	2	5 $\nabla$	24·45	156
Ringwood (Bisterne).....	Rev. C. Mills .....	8	0	11	45 $\nabla$	31·77	...
„ (Burley Park) .....	Rev. W. Esdaile .....	5	1	0	200 $\nabla$	32·55	...
„ Vicarage .....	Rev. W. D. Bodkin ...	...	4	0	52 $\nabla$	28·01	...
Fareham (Belvoir House) .....	E. Woakes, Esq., M.D.	5	0	11	20	28·34	...
D Porchester (Noel Cottage).....	Miss Montgomerie Frost	5	2	0	...	24·47	165
D† Havant (Farlington) .....	H. Ashley, Esq., C.E....	5	1	0	77 $\nabla$	25·33	151
† „ ( „ ) .....	M „ „ „ .....	5	1	0	77 $\nabla$	25·15	...
D† „ .....	„ „ „ .....	5	1	0	25 $\nabla$	22·88	166
† „ .....	M „ „ „ .....	5	1	0	25 $\nabla$	23·13	...
„ (Denville Lodge) .....	G. H. Evans, Esq.....	5	0	6	9 $\nabla$	30·20	...
D† Emsworth (Redlands) .....	F. Jacomb-Hood, Esq.	5	1	0	90 $\nabla$	29·42	170
D Southampton (Cadland) .....	A. C. Drummond, Esq.	8	4	6	52 $\nabla$	29·88	171
D „ (Heathfield, Dibden) .....	Jesse Reeves, Esq.....	5	1	3	127	30·96	194
Lyndhurst (Cuffnells) .....	R. G. Hargreaves, Esq.	6	1	0	200	36·55	...
Netley (Royal Victoria Hospital)	Mr. E. Batchelor .....	8	0	5	37 $\nabla$	29·39	...
D „ (Lake House).....	Col. W. A. Pennington	8	1	0	54 $\nabla$	31·38	205
Cosham (Purbrook Grange) .....	Miss F. A. Deverell ...	8	0	9	100 $\nabla$	29·86	...
D North Havant (Oaklands) .....	F. Stubington, Esq. ...	8	3	0	160 $\nabla$	31·84	171
D Fordingbridge (Cuckoo Hill) ...	Heywood Sumner, Esq.	5	0	7	150	31·61	170
† Southampton (Ordinance Surv. Off.)	Col. R. C. Hellard, R.E.	5	1	0	79 $\nabla$	30·80	182
„ (Thornhill Park) .....	Col. F. Willan .....	5	1	8	220 $\nabla$	26·91	...
„ (Anglesea Rd., Shirley)	A. Spooner, Esq. ....	5	1	1	83	29·59	...
Lyndhurst (Cadenham Grange)..	Capt. A. S. Reynolds...	5	1	0	120 $\nabla$	32·75	...
„ (Fritham House) .....	Mrs. F. E. Chapman ...	5	1	0	420	29·44	156
Southampton Common Res. ...M	W. Matthews, Esq. C.E.	5	1	0	193 $\nabla$	24·62	...
D Wickham (The Croft) .....	Miss C. L. Rashleigh...	5	0	11	80 $\nabla$	31·24	174
D Botley (Botley Hill) .....	Lady Jenkyns .....	5	1	6	36 $\nabla$	29·58	182
D „ (Beechcroft, Curdridge)..	Miss L. M. S. Pasley...	8	1	6	96	31·43	209
† Horndean (Blendworth Lodge)...	Mrs. Long .....	8	0	10	217	37·57	187
Fordingbridge (Oaklands) .....	S. B. Rake, Esq. ....	8	1	0	135 $\nabla$	30·51	...
D Hambledon (Rosecroft).....	Mr. L. Dawes.....	5	2	6	200 $\nabla$	34·16	189
Bishops Waltham (Swanmore House)	W. H. Myers, Esq. ...	8	1	0	390 $\nabla$	32·44	172
D „ „ (Hill Place) .....	Major W. A. Daubeny.	8	0	9	260 $\nabla$	32·61	180
„ „ (Northbrook Ho.) .....	H. W. Trinder, Esq....	5	1	0	136 $\nabla$	33·10	184
„ „ (Wintershill Hall) .....	J. S. Moss, Esq.....	5	1	0	290 $\nabla$	31·53	...
D Droxford (Uplands) .....	Miss Bridge .....	5	1	0	279 $\nabla$	34·56	170
„ (Fir Hill) .....	Capt. Mackenzie-Grieve	5	3	6	212 $\nabla$	32·85	179
D Eastleigh (Fair Oak Park) .....	G. H. Pember, Esq. ...	5	1	0	180	31·00	200
Chandlers Ford (Fryern) .....	Miss Grace Stuart .....	5	1	2	200	29·65	...
D Petersfield (Ditcham Park) .....	C. J. P. Cave, Esq. ...	8	1	1	541 $\nabla$	33·66	198

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

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain. 1907	Days with -01 or more recorded.
		Diameter	Height Above Ground			
		in.	ft.	in.	feet.	inches.
HAMPSHIRE—(con.)						
Petersfield (Sunwood) .....	C. J. P. Cave, Esq. ...	5	0	10	479 $\nabla$	35·31? ...
„ (Old Ditcham).....	„ „ „ „ „ „	5	0	9	250 $\nabla$	35·00? ...
D East Meon (Westbury House) ..	Col. LeRoy Lewis, D.S.O.	5	2	6	296 $\nabla$	36·22 174
D Ampfield Vicarage.....	Rev. Vere Awdry .....	5	3	0	230 $\nabla$	29·41 177
D Otterbourne (Elderfield) .....	G. Norsworthy, Esq....	5	1	0	137 $\nabla$	32·21 197
D „ (W.W., Shawford).	W. Matthews, Esq., C.E.	5	1	0	113 $\nabla$	25·62 186
„ „ „ „ „ „ ) M	„ „ „ „ „ „	5	1	0	113 $\nabla$	25·87 ...
D Petersfield (Fairley) .....	A. W. Leachman, Esq. MD	5	0	9	202 $\nabla$	35·84 177
„ (Bordean House).....	Col. Alfred Bibby .....	5	1	0	550 $\nabla$	37·31 213
D Romsey (Timsbury) .....	Baldwin Latham Esq. CE	8	1	8	96 $\nabla$	29·11 175
D Twyford (Pumping Station).....	„ „ „ „ „ „	8	1	9	139 $\nabla$	30·71 158
Kilmeston Manor .....	C. G. Heathcote, Esq... 5	4	6		323 $\nabla$	33·46 ...
D West Dean .....	Rev. E. Wells .....	5	1	0	137 $\nabla$	29·24 185
D East Liss (Newlands) .....	late E. B. Falwasser, Esq.	5	1	0	390 $\nabla$	33·77 168
West Liss (Kippences) .....	Rev. W. A. H. Thorold	4	1	4	250	32·52 ...
D Colmer Rectory .....	Rev. A. C. Hervey.....	5	1	1	560 $\nabla$	35·02 164
D Alresford (Ovington Rectory) ...	Rev. H. F. La M. Stowell	5	1	0	221 $\nabla$	35·34 175
D Greatham (King's Holt) .....	Mrs. Chase Parr.....	5	1	7	279 $\nabla$	35·27 165
„ (Manor House).....	F. Coryton, Esq. ....	7	0	7	250	33·33 ...
D Winchester (Wyke) .....	Miss I. M. Deedes .....	5	1	3	282	31·28 158
Horsebridge (Bossington).....	W. H. Deverell, Esq... 8	0	9		92 $\nabla$	30·69 187
D Stockbridge (Ashley) .....	Legh S. Powell, Esq....	5	1	3	235 $\nabla$	29·57 159
D Broughton (Boys' School) .....	W. C. Upshall, Esq. ...	5	1	0	130	29·09 188
D „ .....	W. Steele Tomkins, Esq.	5	1	0	125 $\nabla$	31·83 186
D Liphook (Fowley) .....	E. A. Lee, Esq. ....	5	0	10	296 $\nabla$	31·61 190
„ (White Hill Chase) ...	Viscount Hawarden ...	5	1	0	300 $\nabla$	28·93 156
D Newton Valence Vicarage.....	Rev. A. C. MacLachlan.	5	1	0	586	35·03 203
D § Grayshott [Hindhead] .....	Mrs. Lyndon .....	5	1	0	660 $\nabla$	32·87 196
D Headley (Eveley) .....	Mr. T. Carter.....	5	1	3	295 $\nabla$	33·19 159
Liphook (Bordon Camp) .....	Lt.-Col. R. E. Woolmer	8	1	0	268 $\nabla$	28·44 ...
D § Swarraton Rectory .....	Rev. W. L. W. Eyre... 5	1	0		310 $\nabla$	30·44 205
Headley House .....	Mr. G. Glaysher.....	6	1	6	250 ?	28·21 ...
D Alton (Ashdell).....	F. Crowley, Esq. ....	8	3	6	433 $\nabla$	33·62 170
„ (Eagles Nest) .....	„ „ „ „ „ „	5	52	4	505	21·39 ...
D „ (Holybourne) .....	late Admiral H. C. Bigge	5	1	3	398 $\nabla$	32·38 187
„ (Shalden Manor).....	J. G. Wood, Esq. ....	8	3	0	594 $\nabla$	36·48 192
Bentley (Marelands) .....	A. E. Seawell, Esq. ...	...	...	...	300	30·33 ...
D Herriard Vicarage... ..	Rev. E. L. Crawhall ...	5	1	0	550 $\nabla$	31·69 185
D Andover (Junction Road) .....	W. Tomlin, Esq. ....	5	0	10	200 $\nabla$	31·67 169
D Tidworth House [Ludgershall]..	Mr. G. A. Inglefield ...	5	1	8	357 $\nabla$	24·74 167
D Warren Corner [Farnham] .....	F. Wilkin, Esq.....	5	1	0	575 $\nabla$	27·12 165
Upton Grey (Hoddington Ho.)...	Lord Basing .....	8	1	0	378 $\nabla$	33·29 174
Oakley .....	Rev. F. G. Hume .....	5	1	6	400	30·83 191
D Maplederwell .....	H. B. Thorp, Esq.....	8	1	2	300	29·48 150
§ Aldershot .....	Royal Meteorological Soc	...	...	...	231	29·36 203
D Basingstoke (Sherborne St. John)	Rev. D. W. Chute .....	5	1	2	267 $\nabla$	31·75 198
D Winchfield (Elvetham Park) ...	Mr. G. B. Mitchison ...	8	1	0	217 $\nabla$	28·70 214

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

STATIONS.	AUTHORITIES.	Rain Gauge.				Depth of Rain.	Days with -01 or more recorded.
		Diameter	Height Above Ground.		Height Above Sea Level	1907	
		in.	ft.	in.	feet.	inches.	
HAMPSHIRE—(con.)							
D Hartley Wintney .....	W. G. Machin, Esq. ....	5	1	2	222 T	27·46	168
D „ Grange .....	F. Walkinshaw, Esq. ....	8	1	0	221 T	30·48	173
D Kingsclere (Tower Hill House)...	Dr. R. Maples.....	5	1	0	327 T	33·30	189
D Strathfieldsaye Rectory .....	Rev. F. Page-Roberts..	5	2	0	164	28·01	202
D „ Gardens .....	Mr. A. G. Nichols .....	5	1	8	166	27·77	180
D Heckfield (Highfield Park) .....	F. B. Marson, Esq. ...	5	1	3	262	26·82	179
„ (Park Corner) .....	J. Martineau, Esq. ....	5	1	2	257	24·19	159
BERKSHIRE.							
D Sandhurst Lodge .....	Sir W. J. Farrer .....	8	2	9	263	27·78	157
D Wellington College .....	Rev. H. P. Fitzgerald..	5	1	0	283 T	26·04	161
Finchampstead (West Court) ...	C.E.Harris-St.John, Esq.	5	1	0	180	25·89	193
Mortimer (Wokefield Park) .....	A. Palmer, Esq.....	5	4	0	180 T	25·23	173
D Newbury (Sandleford Priory) ...	Mr. R. H. Butcher .....	8	2	0	381 T	30·33	192
D „ (Greenham Common)..	H. L. Bowman, Esq....	5	1	0	328 T	28·67	175
D Sulhamstead (Firlands) .....	J. T. Strange, Esq. ...	5	1	0	300 T	26·28	170
D Aldermaston Wharf .....	„ „ „ .....	5	1	0	181 T	27·40	216
D Sunningdale (Lynwood) .....	G. Rodie Thompson, Esq.	5	1	0	266 T	26·68	178
D Ascot (Winkfield Manor) .....	C. A. Ferard, Esq.....	5	1	0	240 T	24·51	178
D Wokingham (Staverton) .....	H. C. Mylne, Esq. ....	5	1	0	220 T	23·34	197
§ „ (Pinewood) .....	Meteorological Office...	8	1	0	219	23·91	159
D Newbury (Woodspeen) .....	R. d'Eyncourt Day, Esq.	5	1	3	200 T	29·22	183
D Beenham House .....	H. Waring, Esq. ....	8	2	2	326	25·75	173
§ Bucklebury Place .....	Meteorological Office ...	...	1	0	409	26·02	...
D Bracknell (Warfield).....	Rev. B. C. Littlewood .	5	0	6	199 T	23·32	189
D Windsor (Royal Gardens).....	Mr. T. Edwards.....	5	1	0	...	24·30	186
Reading (Englefield).....	Mr. J. Coombes .....	5	1	1	175 ?	25·69	182
D „ (Calcot Place).....	General Swettenham...	5	1	4	176 T	25·43	199
§ „ (Leighton Park) .....	Meteorological Office...	8	1	0	265	21·75	166
D „ (Ellerslie, Tilehurst Rd.) ..	Rev. A. Cheales .....	5	1	0	195 T	23·36	167
D „ (Forbury Gardens).....	J. Bowen, Esq., C.E....	5	1	5	145 T	24·88	197
D „ (The Cedars, London Rd.) ..	W. Haynes, Esq. ....	5	2	7	151 T	24·34	194
D „ (Earley) .....	M. J. Sutton, Esq. ...	8	1	6	150 T	25·19	...
D Newbury (Welford Park) .....	Mr. C. Ross.....	5	1	0	341 T	35·23	207
D „ (Weston) .....	R. Osmond, Esq. ....	5	1	4	335 T	28·69	190
D Frilsham House .....	Mr. W. E. Austen.....	5	1	0	370	26·62	170
D Yattendon Court .....	Mr. G. H. Clack .....	5	0	10	440 T	27·24	154
D Lambourn (East Garston) .....	J. H. Spackman, Esq...	5	2	6	395 T	30·86	181
„ (Clarionville) .....	F. Gullett, Esq.....	5	1	6	500	30·45	129
D Maidenhead (Heywood Park) ...	Greville H. Palmer, Esq.	8	1	0	100	26·48	183
D „ (The Firs, Castle Hill) ..	J. W. Duncan, Esq. ...	5	1	0	170 T	24·32	179
D „ (Isis Cottage) .....	O. King, Esq. ....	5	1	0	80	25·64	183
D Farnborough Rectory .....	Rev. J. B. H. Whitehurst	5	1	3	713 T	33·08	183
D Bisham Vicarage .....	Rev. Wm. Farrer .....	5	1	0	100	26·91	177
Cookham Vicarage.....	Rev. R. W. Rogers ...	5	1	3	90 T	25·65	...
D Temple House [Marlow] .....	Mr. G. Groves.....	5	1	0	106	25·94	197
Wallingford (Aston Upthorpe)..	J. Harold Slade, Esq...	5	1	1	...	25·89	...

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

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain.	Days with 01 or more recorded.
		Diameter	Height Above Ground	Height Above Sea Level	1907	
		in.	ft. in.	feet.	inches.	
BERKSHIRE—(con.)						
D Didcot (Upton) .....	Miss Fry.....	5	2 3	240 T	28·40	168
D Wantage .....	W. Hanson, Esq., C.E.	5	1 0	304	28·00	169
D Wallingford (Woodlea).....	G. F. Slade, Esq. ....	5	0 6	...	25·08	158
„ Castle .....	Miss Hedges .....	5	1 0	175 A	24·66	...
D „ (Brightwell).....	Lt.-Col. G. Hart Dyke.	5	1 4	170	25·42	166
Little Wittenham .....	J. Latham, Esq. ....	5	2 0	187	22·72	...
D Long Wittenham (Manor Ho.)...	Admiral Clutterbuck...	12	1 0	170 A	27·19	165
„ „ (Lovegrove's Cott.)	Rev. F. C. Clutterbuck	5	1 0	165	26·70	...
Faringdon .....	Mr. C. Luker .....	5	1 0	333 T	28·50	158
D Abingdon (The Square House)...	E. Estridge, Esq. ....	5	2 1	180 T	24·85	182
D „ (Park Road).....	A. Pettipher, Esq.....	5	1 6	180 B	26·44	186
D „ (Caldecott House) ...	Maj.-Gen. I. M. Bailie.	5	1 6	177 T	24·88	151
„ (Sewage Works) .....	G. Winship, Esq., C.E.	5	0 6	169	24·63	...
D „ Union .....	Mr. J. Fray .....	5	1 0	196	26·70	171
„ (Northcourt House)...	M. T. Tatham, Esq. ...	5	0 7	190 T	26·10	...

DIVISION III.—SOUTH MIDLAND COUNTIES.

MIDDLESEX.

Laleham .....	J. Thornton, Esq. ....	...	1 0	50 ?	22·77	...
† Hampton (Southwark W.W.)...	Met. Water Board .....	5	1 6	...	20·02	...
D† „ .....	„ „ „ .....	8	1 3	42 A	22·73	177
D Sunbury (Hanworth Road) .....	„ „ „ .....	8	0 6	50 A	23·17	192
Teddington (Hampton Road) ...	T. Gale, Esq. ....	5	1 3	52 T	20·79	152
D Staines (Belle Vue) .....	J. Gundry, Esq. ....	5	1 0	51 A	25·12	165
„ (Cambria House).....	C. Ashby, Esq. ....	5	0 10	50 ?	24·61	150
D Twickenham (Sewage Works)...	F.W. Pearce, Esq., C.E.	5	1 7	37 A	21·35	164
„ „ „ M	„ „ „ „	5	1 7	37 A	20·59	...
D† Kew Bridge .....	Met. Water Board .....	8	3 0	37 A	24·90	157
D Acton (Newburgh Road) .....	Miss Baker .....	5	1 6	86 A	23·39	168
Ealing (Public Buildings) .....	C. Jones, Esq., C.E. ...	5	9 0	114	24·41	156
„ (Gordon Road) .....	Joseph Box, Esq. ....	5	10 0	85 T	24·07	152
„ (Castle Bar Hill) .....	T. Simpson, Esq. ....	5	1 0	152 A	27·34	190
D „ (St. Stephen's Road) ...	H. W. Peal, Esq. ....	8	2 4	159 T	23·48	168
D „ (Grange Park) .....	H. M. Baker, Esq.....	5	1 6	98 A	25·28	188
D Uxbridge (Cowley) .....	H. Judson, Esq.....	5	1 0	90 T	23·00	157
Perivale (Sewage Farm) .....	C. Jones, Esq., C.E. ...	5	12 0	56	23·68	178
D Willesden (Donnington Road)...	G. Ralph Baker, Esq...	5	1 0	184 A	23·63	157
D† „ Reservoir .....	Met. Water Board .....	5	2 6	199 A	24·37	151
D† „ Green (Strode Road)...	Miss Lamport.....	5	1 0	150	25·40	171
D „ (Stonebridge Farm) (R)	O. C. Robson, Esq., C.E.	10	5 9	99 T	23·76	146
D Highgate (North Hill) .....	L. J. Tatham, Esq. ...	5	1 0	400	23·50	171
D „ ( „ „ ) .....	E. J. Lovegrove, Esq., CE	5	3 10	302	25·36	179
D Harrow .....	J. P. Bennetts, Esq., C.E.	5	1 0	215	25·37	175
D Hendon (Central School) .....	J. W. Butler, Esq. ...	5	1 4	200	23·26	193
D Tottenham .....	W. P. West, Esq.....	5	1 3	53 T	23·96	150
D† Hornsey (High Street) .....	Met. Water Board .....	5	4 0	109	26·28	169



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

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain.	Days with "01 or more recorded.
		Diameter	Height Above Ground		Height Above Sea Level	
		in.	ft.	in.	feet.	inches.
HERTFORDSHIRE—(con.)						
Northaw (Newgate Street) .....	Rev. H. W. Southey ...	5	1	0	370 T	24·58
d† Broxbourne (Stafford House) ...	A. F. Newbery, Esq. ...	5	1	0	118 T	24·74
d Hemel Hempstead (Apsley Mills)	Messrs.J.Dickinson & Co.	24	1	4	260	29·45
St. Albans (Bone Hill) .....	J. Hopkinson, Esq. ...	5	1	0	336 A	27·27
d „ (Hill End) .....	G. Goodchild, Esq. ...	5	1	0	295 T	24·55
d „ (County Museum) ...	J. Hopkinson, Esq. ...	5	1	0	389 T	26·68
„ (Gorhambury).....	Mr. W. Newberry .....	5	1	0	425 T	26·63
d† Hoddesden (Feilde's Weir) .....	Met. Water Board.....	8	3	8	95 A	21·13
d† Berkhamstead (Rosebank) .....	E. Mawley, Esq. ....	8	1	0	401 A	27·87
† „ „ „ )... M	„ „ „ .....	8	1	0	401 T	27·24
d Haileybury College .....	P. H. Latham, Esq. ...	8	1	0	270 T	22·29
d Gilston Park .....	Mr. E. Leach .....	8	1	0	175 T	24·88
d Hatfield (Holwell House).....	Wilfrid E. Laurie, Esq.	5	1	6	240 T	22·95
d Hertford (Bayfordbury) .....	H.W.Clinton Baker, Esq.	8	1	2	250	23·75
d Stanstead Abbots .....	E. H. Barlow, Esq. ...	5	1	2	115 T	22·37
d† Hertford (Sewage Works) .....	Met. Water Board.....	8	1	0	121	20·03
Tring (Wigginton) .....	Rev. H. J. E. Burrell..	5	1	0	710 A	27·63
d „ (Grove Lodge) .....	Miss Boyson .....	8	1	0	450	27·23
„ (Pendley Manor) .....	Mrs. Williams .....	5	2	0	420	30·03
d „ (Elm House) .....	Dr. E. J. Le Quesne ...	5	1	2	460	26·25
„ (Cowroast) .....	Gordon C. Thomas, Esq.	5	3	8	394 A	28·79
§ Harpenden (Rothamstead) .....	A. D. Hall, Esq. ....	5	0	9	420 T	26·99
§ „ „ „ } .....	„ „ „ .....	8	0	9	420 T	25·29
d § „ „ „ } .....	„ „ „ .....	72x87	0	9	420 T	27·41
d Ware (Red House).....	Met. Water Board.....	5	4	0	115 T	21·42
§ „ (Grammar School for Girls)	Roy.Meteorological Soc.	...	...	...	120	21·73
„ (Fanham's Hall) .....	Miss V. M. Croft .....	8	1	0	210 T	22·44
d Welwyn (Bridge House) .....	B.W.Thomas, Esq., MD	5	2	3	216	27·09
d „ (Danesbury) .....	Mr. R. F. Sawford.....	8	1	0	400 T	26·06
d Much Hadham .....	T. W. Mott, Esq. ....	5	1	0	212	22·88
d § Bennington House.....	Rev. Dr. J. D. Parker..	5	1	0	406 A	23·39
d „ Lordship .....	A. F. Bott, Esq. ....	5	0	10	365 A	24·99
d „ (Eileen Cottage) .....	A. B. Legard, Esq.....	5	1	0	408	24·91
Little Hadham (Hadham Hall)..	J. Hopkinson, Esq. ...	...	...	...	...	25·28
d Buntingford (Hamels Park).....	H. Shepherd Cross, Esq.	5	1	3	390 T	24·04
„ (Westmill) .....	T. Greg, Esq.....	5	0	8	379 T	23·98
d Hitchin (Preston) .....	R. de V. Pryor, Esq....	8	2	5	480 A	24·85
d† „ (Wratten).....	W. Lucas, Esq. ....	5	2	1	238 A	24·51
d† „ (The Maples) .....	W. Hill, Esq.....	8	1	1	220 T	25·25
d† „ (The Chilterns) .....	F. Ransom, Esq. ....	5	0	9	300 A	24·20
d† „ (High Down) .....	J. Pollard, Esq. ....	5	1	1	422 A	23·01
d Weston Park .....	M. R. Pryor, Esq. ....	5	0	8	470 T	25·03
d Buntingford (Throcking Rectory)	Rev. C. W. Harvey ...	5	1	0	487 A	24·80
d Baldock (High Street) .....	Dr. Langston Day.....	5	1	0	214 A	24·72
d Royston (Therfield Rectory). ...	Mr. J. Cracknell .....	5	4	3	510 A	24·42
„ (Barley) .....	W. W. Cook, Esq.....	5	1	0	249	26·48
d „ (Earlshill House).....	J. Phillips, Esq.....	8	1	1	225 T	24·08



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

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain. 1907	Days with .01 or more recorded.
		Diameter	Height Above Ground.		Height Above Sea Level	
		in.	ft.	in.	feet.	inches.
<b>HERTFORDSHIRE—(con.)</b>						
Royston (Union Workhouse) ...	J. W. Wesson, Esq. ...	5	1	0	217 T	24·31
„ (Melbourne Street) .....	J. E. J. Phillips, Esq. ..	8	0	11	201 T	23·85
<b>BUCKINGHAMSHIRE.</b>						
Horton (Crown Inn) .....	J. C. Willcocks, Esq. ...	8	...	...	60 ?	23·16
o Eton (Tangier Islands) .....	C. Sainty, Esq. ....	5	1	0	67 T	23·94
o Slough (Langley) .....	R. H. Major, Esq. ....	8	0	10	85 T	23·85
† „ (Upton) .....	R. Bentley, Esq. ....	8	2	0	80 T	22·78
o† „ ( „ ) .....	„ „ „ „ .....	5	2	0	78 T	23·94
Taplow Court .....	Lord Desborough .....	8	1	0	217 T	23·55
Burnham (Burnham Cottage) ...	G. J. Williams, Esq. ...	5	3	0	162 T	24·84
o „ (East Burnham Lodge) .....	Mrs. Harvey .....	5	1	0	255	24·67
o Farnham Royal (Broomlands) ...	F. C. Moscrop-Young Esq.	5	1	0	205 T	24·27
o „ (The Chase) ...	M. C. Carr-Gomm, Esq. ..	5	3	0	175 T	25·06
Greenlands [Henley-on-Thames]	Hon. W. F. Smith, M. P. ..	8	1	3	116	26·23
o Hedsor .....	Lord Boston .....	8	1	0	170 T	28·31
o Marlow Mills .....	S. H. Wright, Esq. ....	8	2	0	105	26·54
§ Beaconsfield (Norfolk House) ...	Meteorological Office ...	8	1	0	484	25·92
o High Wycombe .....	H. S. Wheeler, Esq. ....	5	0	11	253 T	29·15
o Chalfont St. Giles (The Stone) ...	Col. R. W. Phipps .....	5	1	4	270 T	28·39
„ „ „ „ „ M	„ „ „ „ „ .....	5	1	0	270 T	27·95
o Amersham (The Plantation) .....	G. Weller, Esq. ....	8	1	0	464 T	28·02
Great Missenden .....	Mr. W. Douglas .....	5	1	0	400	29·71
o Wendover (Halton Gardens) ...	Mr. R. C. Sanders .....	5	1	10	400	27·89
Bulbourne [Tring] .....	Gordon C. Thomas, Esq. ..	5	2	3	401 T	27·12
Mentmore .....	Mr. J. MacGregor .....	5	1	2	...	27·86
o Oving House .....	H. Yates Thompson, Esq. ..	5	1	0	515 T	26·66
„ „ „ „ „ M	„ „ „ „ „ .....	5	1	6	515 T	26·46
o Swanbourne House .....	Lord Cottesloe .....	5	1	0	411 T	25·82
o Winslow (Market Square) .....	R. A. Easton, Esq. ....	8	1	0	380 T	26·42
„ (Norden House) .....	Dr. T. F. Vaisey .....	5	0	7	...	26·12
o „ (Addington Manor) ...	Lord Addington .....	8	1	0	309 T	25·54
„ „ „ „ „ M	„ „ „ „ „ .....	5	1	0	309 T	25·32
Stockgrove Pk. [Leighton Buzzard]	Mr. J. Clues .....	5	1	2	500	27·10
o Buckingham (Adstock Fields) ...	J. E. S. Weston, Esq. ...	5	0	9	352 T	25·03
o „ (The Vicarage) .....	Rev. P. P. Goldingham ..	5	2	0	278 T	27·55
o Wolverton (St. George's Vic.) ...	Rev. W. L. Harnett ...	5	1	0	270 T	25·21
o „ (The School House) ...	H. J. Hipsley, Esq. ....	5	1	0	264 T	24·59
o Newport Pagnell (The Croft) ...	F. Littleboy, Esq. ....	5	2	0	191 T	25·56
„ „ (Lovat Bank) ...	F. J. Taylor, Esq. ....	5	2	0	175 ?	26·15
<b>OXFORDSHIRE.</b>						
Caversham (Eastfield) .....	C. M. Powell, Esq. ....	5	1	0	180 T	24·10
o Goring (Elmcroft) .....	Major E. Gambier Parry ..	5	0	10	160	27·49
Henley-on-Thames (Peppard) ...	Rev. Hubert Shears ...	5	1	0	336	25·38
o „ „ „ (Greys Green) .....	Miss Mary Davis .....	5	2	0	350 T	26·15



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

STATIONS.	AUTHORITIES.	Rain Gauge.				Depth of Rain.	Days with .01 or more recorded.
		Diameter	Height Above Ground.		Height Above Sea Level	1907	
		in.	ft.	in.	feet.	inches.	
OXFORDSHIRE—(con.)							
o Banbury (Bodicote) .....	J. F. Starkey, Esq. ...	8	1	3	388 $\nabla$	29.15	176
Wroxton.....	Hon. Mrs. FitzGerald...	8	1	3	586	31.98	192
NORTHAMPTONSHIRE.							
o Brackley House .....	J. Allen, Esq.....	5	1	0	425 $\nabla$	30.71	195
o Grimsbury [Banbury] W.W. ...	W. E. Wood, Esq....	5	1	3	320 $\nabla$	23.89	167
Thorpe Mandeville.....	C. A. Markham, Esq...	5	1	0	530	28.56	...
Towcester (Bradden Rectory) ..	Rev. C. Blathwayt ...	5	4	6	403	27.50	200
„ (Stoke Bruern Park) ..	Mr. W. Batchelor .....	5	1	0	320	27.42	156
„ (Easton Neston) .....	C. A. Markham, Esq...	8	1	0	340 $\nabla$	28.69	174
o Blisworth (Crieff House) .....	A. Westley, Esq. ....	5	5	0	330	25.11	183
o „ „ .....	T. W. Millner, Esq. ...	5	1	6	300 $\nabla$	25.43	179
„ „ (Milton House) .....	C. A. Markham, Esq...	...	...	...	...	22.93	144
o Lichborough Hall .....	E. Grant, Esq. ....	5	1	10	500	29.36	177
o Daventry (Fawsley) .....	The Lady Knightley ..	5	1	0	477 $\nabla$	28.30	167
o Castle Ashby .....	R. G. Scriven, Esq. ...	5	1	0	263 $\nabla$	27.30	208
Great Houghton .....	C. A. Markham, Esq...	...	...	...	...	26.57	201
o Little Houghton .....	Christopher Smyth, Esq.	5	2	2	271 $\nabla$	26.86	170
o Northampton (Balmoral Road)...	B. Burrows, Esq. ....	5	1	0	240	26.43	169
„ „ (Gold Street) .....	C. A. Markham, Esq...	...	...	...	...	24.87	188
o „ „ (Dallington Avenue) .....	„ „ „ „ .....	5	1	0	265 $\nabla$	25.34	203
„ „ (Berry Wood).....	„ „ „ „ .....	8	1	4	399	25.99	...
o§ „ „ (Gt. Billing Rec.) .....	Rev. G. H. Mullins ...	8	1	6	275 $\nabla$	26.47	181
Daventry .....	C. A. Markham, Esq...	5	1	0	486	28.11	174
o Althorp House .....	Miss Chowler .....	8	3	10	310 $\nabla$	25.46	158
Great Brington .....	C. A. Markham, Esq....	5	2	9	448	25.80	152
o Daventry (Tunnel End) .....	T. W. Millner, Esq. ...	5	1	6	394	28.50	201
o Sywell Hall .....	T. A. Dickson, Esq. ...	5	1	0	371 $\nabla$	30.33	191
o Pitsford (Sedgebrook) .....	C. A. Markham, Esq...	5	1	0	311 $\nabla$	28.73	194
„ „ „ „ „ M .....	„ „ „ „ „ .....	5	1	0	311 $\nabla$	28.63	...
o Mears Ashby .....	Rev. J. B. Fawssett ...	5	6	5	339	29.22	198
o Wellingborough (Swanspool) ...	N. P. Sharman, Esq. ...	5	0	2	155	26.44	189
o „ „ (Croyland Abbey) .....	E. Sharman, Esq. ....	5	1	0	174 $\nabla$	25.88	168
Watford Court .....	C. A. Markham, Esq...	9	1	2	380	27.07	...
o§ Ravensthorpe (Coton Mill) .....	G. S. Eunson, Esq. ...	5	1	0	355	30.18	208
Finedon .....	C. A. Markham, Esq...	...	...	...	...	26.56	200
Scaldwell.....	Capt. R. Soames.....	5	1	0	404 $\nabla$	27.94	...
o§ Raunds (Day Schools) .....	Leon G. H. Lee, Esq...	8	1	0	205 $\nabla$	25.47	184
Lilbourne .....	C. A. Markham, Esq...	...	...	...	...	31.35	...
o Burton Latimer Rectory .....	Rev. W. B. Jacques ...	5	3	0	280	26.75	183
o Cranford (Woodford House).....	E. N. Plevins, Esq. ...	8	0	8	262 $\nabla$	27.11	208
o Kettering (W.W., Cransley) ...	T. R. Smith, Esq., C.E.	8	0	6	275 $\nabla$	26.10	167
„ „ (Workhouse) .....	A. Sattin, Esq. ....	5	0	5	297 $\nabla$	25.99	179
o „ „ (Sewage Works) .....	T. R. Smith, Esq., C.E.	8	1	0	199 $\nabla$	27.46	197
o „ „ (George Street) .....	C. W. Lane, Esq. ....	5	1	0	288 $\nabla$	29.80	187
„ „ (Warkton) .....	Mr. R. H. Brett .....	5	1	3	275 $\nabla$	26.29	...
Rothwell (Loddington) .....	Mr. J. Oliff .....	5	1	0	...	29.37	...

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

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain.	Days with .01 or more recorded.
		Diameter	Height Above Ground	Height Above Sea Level	1907	
		in.	ft. in.	feet.	inches.	
<b>NORTHAMPTONSHIRE—(con.)</b>						
Orton (Sandy Hill Farm).....	Mr. E. E. Grundy .....	5	1 0	400	28·83	...
Thrapston (Islip) .....	J. Edmonds, Esq. ....	5	1 6	145 $\nabla$	23·75	...
<sup>D</sup> „ (Drayton House).....	J. „ „ .....	5	1 6	220 $\nabla$	26·42	154
<sup>D</sup> Welford (Salford House) .....	J. Gee, Esq. ....	5	1 3	566	30·39	204
Aldwinkle St. Peter .....	C. A. Markham, Esq. ...	5	0 11	175	25·20	167
<sup>D</sup> Rushton Manor .....	R. A. Willows, Esq. ...	5	1 0	400 $\uparrow$	27·49	172
<sup>D</sup> Desborough.....	G. E. Marlow, Esq. ...	5	1 0	457 $\nabla$	30·32	182
<sup>D</sup> Marston Trussell .....	Rev. J. Knight Law... (R)	10	2 8	319 $\uparrow$	28·40	158
<sup>D</sup> Barnwell (Lilford Hall) .....	Mr. E. Wilson .....	5	1 0	...	25·06	151
Oundle .....	J. M. Siddons, Esq. ...	5	3 4	105 $\uparrow$	23·54	...
§ „ (Water Works) .....	Meteorological Office ...	5	1 0	147	25·02	168
<sup>D</sup> Corby (Weldon Grange) .....	John Rooke, Esq. ....	8	1 0	342 $\nabla$	27·63	218
Kingscliffe (Fineshade).....	C. A. Markham, Esq. ...	5	0 9	200	26·64	...
Peterborough (Thorpe Hall).....	Col. C. I. Strong .....	6	0 6	30	22·51	...
<sup>D</sup> „ (Minster Close) ...	Miss Constance Percival	5	2 0	30	23·26	196
<sup>D</sup> Eye (Newborough) .....	R. Williams, Esq. ....	5	1 0	8 $\nabla$	22·35	191
Stamford (Easton).....	C. A. Markham, Esq. ...	5	0 9	271 $\uparrow$	27·28	198
„ (St. Martin's).....	Mr. T. Booth .....	5	6 0	107 $\nabla$	25·51	168
<b>HUNTINGDONSHIRE.</b>						
<sup>D</sup> St. Neots (Waresley Park) .....	Lady Caroline Duncombe	5	0 11	190	25·61	187
<sup>D</sup> „ (Great Paxton) .....	Rev. A. G. Cane.....	5	1 0	100 $\uparrow$	22·50	157
Offord D'Arey .....	W. Priestley, Esq. ....	5	0 9	51 $\nabla$	23·22	161
Buckden (Stirtloe House).....	J. Linton, Esq. ....	5	2 0	75	23·50	153
<sup>D</sup> Hemingford Grey Vicarage .....	Rev. Byrom Holland...	5	1 0	25	20·51	180
<sup>D</sup> Huntingdon (Brampton) .....	Miss May Bird .....	5	1 1	39 $\uparrow$	25·92	195
<sup>D</sup> „ .....	H. Lucas, Esq. ....	5	1 6	35 $\nabla$	18·42	194
„ (Hinchingsbrook Gardens)	Mr. J. Barson.....	10	6 0	74 $\uparrow$	23·37	145
<sup>D</sup> St. Ives (Slepe House) .....	Dr. W. R. Grove .....	5	1 0	25	20·84	172
<sup>D</sup> Houghton Grange .....	C. H. Coote, Esq. ....	5	1 0	114	22·73	152
<sup>D</sup> Catworth.....	Miss E. M. Conway ...	5	0 9	210 $\nabla$	24·39	218
<sup>D</sup> Somersham Vicarage .....	Mrs. de Courcy-Ireland	5	0 10	36	21·59	157
<sup>D</sup> Whittlesea Mere .....	A. Lunn, Esq., C.E. ...	8	1 6	10 ?	20·83	141
<b>BEDFORDSHIRE.</b>						
<sup>D</sup> Dunstable (Kensworth).....	Miss Jones .....	5	1 5	630 $\nabla$	29·72	175
Luton (Stockwood) .....	Francis Crawley, Esq. ..	5	3 0	539 $\uparrow$	23·46	168
<sup>D</sup> „ (Pumping Station).....	S. F. L. Fox, Esq., C.E.	5	1 0	343 $\nabla$	25·34	184
<sup>D</sup> „ (Tennyson Road) .....	Harold F. Smith, Esq.	5	1 1	530 $\uparrow$	25·79	191
<sup>D</sup> Woburn (Milton Bryant).....	Mr. C. J. Kilby .....	5	1 0	510	22·39	181
<sup>D</sup> Shillington .....	Kilham Roberts, Esq. ...	5	1 0	182 $\nabla$	23·42	189
Holwell Bury [Hitchin] .....	C. Chittick, Esq. ....	5	1 0	185 $\uparrow$	23·14	156
<sup>D</sup> Ampthill (Higham Bury).....	E. J. Jekyll, Esq. ....	5	1 0	310 $\uparrow$	24·52	184
„ (Silsoe) .....	H. Trethewy, Esq. ....	5	1 0	214 $\uparrow$	25·96	165
<sup>D</sup> Shefford (Upper Stondon).....	R. Long, Esq. ....	5	1 0	241 $\uparrow$	22·57	147
<sup>D</sup> Woburn (Crawley Mill Farm)...	H. M. Freear, Esq. ...	8	1 0	292 $\uparrow$	23·78	203

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

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain. 1907	Days with $\cdot 01$ or more recorded.
		Diameter.	Height Above Ground.	Height Above Sea Level.		
		in.	ft. in.	feet.	inches.	
BEDFORDSHIRE—(con.)						
D Woburn (Fruit Farm, Ridgmont)	W. H. Neild, Esq. ....	5	0 8	270 T	24·60	210
D Stotfold (Three Counties Asylum)	Dr. J. E. de Lisle .....	5	1 0	220 T	21·64	179
Shefford (Clifton Bury) .....	A. Inskip, Esq. ....	5	2 1	150	21·98	...
„ Hardwick .....	H. Inskip, Esq. ....	5	2 6	90 ?	22·62	...
D Cranfield School .....	Alfred Death, Esq. ...	5	1 6	365	25·58	194
D Biggleswade (Waterworks) .....	H. Carne, Esq., C.E. ....	5	1 0	170 T	21·17	148
D „ (Old Warden Park) .....	Mr. W. C. Modral .....	8	1 2	90	30·23	183
D Potton (Wrestlingworth) .....	H. J. King, Esq. ....	5	1 0	119 T	24·39	170
Sandy (The Lodge) .....	Viscount Peel .....	5	1 0	200 ?	23·84	178
D „ (Beeston Grange) .....	Col. Maunsell Bowers..	5	1 0	...	22·99	212
D „ Rectory .....	Rev. J. Richardson ...	5	1 0	120	27·31	189
Bedford (Amphill Road) .....	Thomas Pearse, Esq. ....	5	1 6	88	23·61	157
„ (De Parys Avenue) .....	W. Godfrey, Esq. ....	5	1 0	120 ?	22·30	154
D „ (The Park) .....	(R) N. Greenshields, Esq. ....	8	5 8	123 T	21·80	166
„ (Castle Road) .....	Miss M. E. Newbery ...	5	7 0	130 ?	22·75	168
„ (Bromham House) .....	R. S. Allen, Esq. ....	8	1 2	200	24·96	...
Goldington (Castle Mills) .....	W. H. Rogers, Esq. ...	5	1 6	90 T	21·00	...
Great Barford Vicarage .....	A. J. W. Pym, Esq. ...	5	1 2	67 T	22·52	151
„ „ House .....	J. Arnold Whitchurch Esq.	5	1 5	120 T	22·78	...
Sharnbrook (Colworth Gardens)	Mr. J. Hoad .....	5	2 0	250	23·58	...
CAMBRIDGESHIRE.						
D Odsey [Ashwell] .....	No. 1 H. G. Fordham, Esq. ....	5	1 0	256 T	23·28	196
„ [ „ ] .....	No. 2 „ „ „ „ ..	5	1 0	256 T	22·02	192
D Foxton House .....	A. P. Humphry, Esq. ...	5	1 0	60 T	22·93	161
D Meldreth (Chiswick Farm) .....	A. Howard, Esq. ....	5	1 1	70 T	23·25	180
D „ (Belmington Close) ...	G. Warren Bindloss, Esq.	5	1 0	65 T	23·71	173
D Whittlesford (Sawston Hall) ...	D. L. Huddleston, Esq. ...	5	1 1	86 T	23·79	190
D Harston .....	Mrs. C. M. Baldwin ...	5	0 8	47	22·27	161
D Wimpole Hall .....	Mr. W. J. Snell .....	5	1 0	141	23·48	152
D Stapleford House .....	J. H. H. Linton, Esq. ...	5	2 3	64	21·87	176
Weston Colville .....	Gerald H. Long, Esq. ...	5	1 0	327 T	21·72	168
D Carlton Hall .....	A. S. Nice, Esq. ....	5	1 6	290 T	25·28	176
D Trumpington .....	C. Parsons, Esq. ....	5	1 0	60 T	24·03	162
D Grantchester Mill .....	J. Nutter, Esq. ....	5	5 0	31 T	22·42	165
D Cambridge (Fulbourne Pumping Sta)	W. W. Gray, Esq., C.E. ...	5	1 0	37 T	23·68	210
D „ (W. W. Cherryhinton) ..	„ „ „ „ ..	5	1 0	35 T	22·22	179
„ (Southacre) .....	L. De Bunsen, Esq. ...	5	1 0	43	22·68	170
D „ (Harvey Road) .....	Smith Nutter, Esq. ...	8	5 5	45	22·69	194
D „ (Herschel House) ...	C. N. H. Lock, Esq. ...	5	1 1	36 T	22·92	169
D „ (Sidney Street) .....	W. E. Pain, Esq. ....	8	60 0	92 T	22·73	189
D „ (Tenison Avenue) ...	W. B. Parsons, Esq. ...	8	1 2	...	21·99	187
D „ (Pinehurst) .....	C. F. Foster, Esq. ....	5	0 10	36	22·81	175
D § „ (Botanic Gardens) ...	R. Irwin Lynch, Esq. ...	8	0 10	40	21·21	169
„ (Chesterton) .....	F. Skinner, Esq. ....	5	1 0	60 T	21·39	...
D „ (Quy Hall) .....	T. Musgrave Francis Esq.	5	0 5	24 T	23·56	201
D Boxworth [St. Ives] .....	E. H. Thornhill, Esq. ...	5	1 0	76 T	22·30	203
D Burwell .....	R. Stephenson, Esq. ....	5	2 0	58	23·25	183

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

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain. 1907	Days with .01 or more recorded.
		Diameter	Height Above Ground.		Height Above Sea Level	
		in.	ft.	in.	feet.	inches.
<b>CAMBRIDGESHIRE—(con.)</b>						
D Conington Hall [St. Ives] .....	Philip T. Gardner, Esq.	8	0	5	50 T	23·82
D Cottenham (Bernard House).....	A. Bull, Esq. ....	5	3	6	30 T	22·79
Soham .....	T. Everett, Esq. ....	5	2	0	25 T	20·93
D Stretham (Dimocks Cote) .....	Mr. J. Housley .....	5	13	7	...	21·57
D „ Engine .....	„ „ „ „ .....	9	4	9	13 A	19·84
D „ (Orchard House) .....	C. Wright, Esq.....	8	5	0	42	21·20
D Ely (The Palace) .....	Mr. A. Sewell.....	5	1	0	64 T	22·50
Chatteris (Holwood Farm) .....	Mr. G. Argent .....	5	0	10	12	22·78
Mepal Engine.....	Mr. J. Goodman.....	5	20	6	25	15·91
Littleport (Highfield House) ...	H. G. Martin, Esq. ...	8	2	7	67 T	20·23
D Chatteris (Aylesby House) .....	A. H. Ruston, Esq. ...	8	0	6	31	23·42
„ (The Priory) .....	H. F. Fryer, Esq.....	5	0	7	31	22·87
D March .....	A. Lunn, Esq., C.E. ...	9	2	0	...	23·26
D Upwell (Marmont Priory Lock)..	„ „ „ „ .....	8	1	1	...	21·39
D „ (Euximoor House) .....	H. West, jun., Esq. ...	5	0	8	15	23·49
D Thorney (Bedford Office) .....	A. J. Forrest, Esq. ...	8	3	6	9 A	21·06
D \$ „ (Wryde House) .....	S. Egar, Esq. ....	5	1	0	7 T	22·50
D Wisbech (Bank House).....	Lord Peckover of Wisbech	8	0	8	6	21·76
D „ (Monica Road) .....	W. Climensson, Esq. ...	8	1	2	6	23·44

## DIVISION IV.—EASTERN COUNTIES.

## ESSEX.

D Grays Sewage Works .....	A. C. James, Esq., C.E.	8	2	3	12 A	19·72	167
D Orsett .....	W. Powell, Esq.....	8	3	0	73 T	21·37	156
\$ East Ham .....	Meteorological Office ...	8	1	0	13	20·46	157
D „ „ .....	Met. Water Board.....	8	0	11	17 A	21·08	142
D \$ Shoeburyness .....	Superintendt. of Expts.	8	1	0	13 A	18·27	168
\$ „ „ .....	M „ „ „ „	5	1	0	13 A	17·73	...
D West Ham (Abbey Mills).....	M Fitzmaurice Esq CMG	8	1	0	11 A	21·00	164
Barking Cemetery.....	H. Hargreaves, Esq....	5	1	0	18	21·11	...
Southend (Corporation Obsy.) ...	Southend Corporation..	8	1	0	90	18·49	...
„ (Broadway) .....	H. J. G. Ralph, Esq....	5	1	0	78 B	20·17	170
D „ (Water Works).....	Southend Water Wks Co	8	1	0	112 A	19·98	173
D „ ( „ „ Eastwood)	„ „ „ „ „	8	1	0	50 A	18·65	164
D North Ockendon.....	W. Beech, Esq. ....	5	1	3	100	19·39	174
D Wanstead (Red Bridge) .....	Met. Water Board.....	8	8	0	33	22·85	150
Manor Park (Albany Road) ... M	A. J. Wilmshurst, Esq.	5	3	0	40 P	21·88	...
D Leyton (Town Hall) .....	W. Dawson, Esq., C.E.	5	1	0	22 A	22·40	154
D † Lea Bridge .....	Met. Water Board.....	8	0	6	23 A	22·09	151
D Upminster Hall ...	Captain G. H. T. Swinton	5	1	0	121 T	19·78	176
D † Walthamstow (Ferry Lane).....	Met. Water Board.....	8	0	10	30	23·10	164
D Romford (Harold Wood) .....	J. G. Broodbank, Esq..	5	4	0	120	21·97	186
D † Woodford (Haggard Lane) .....	Met. Water Board.....	8	0	8	176 A	22·27	155
D Foulness (The Lodge) .....	B. C. Hall, Esq.....	5	1	2	9 A	17·10	135
D Billericay (Ramsden Hall) .....	T. W. Bacon, Esq.....	5	0	9	260 A	22·11	183
D Wickford (Runwell Hall).....	Col. H. Kemble .....	5	1	6	75 T	20·95	157

DIVISION IV.—EASTERN COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain.	Days with -01 or more recorded.
		Diameter	Height Above Ground	Height Above Sea Level	1907	
		in.	ft. in.	feet.	inches.	
<b>ESSEX—(con.)</b>						
b Havering Grange .....	G. P. Hope, Esq. ....	5	1 0	255 A	23·63	209
b „ -atte-Bower(Fernside)	Benjamin Smith, Esq..	5	1 0	341 T	25·77	227
b†Buckhurst Hill Reservoir.....	Met. Water Board.....	8	1 7	275 A	23·22	177
„ „ (Ardmore) .....	Mrs. Eliot Howard ...	8	1 0	270	24·68	...
b†Chingford Mill .....	Met. Water Board.....	8	0 6	40 A	23·71	160
b Brentwood (Shenfield Rectory)...	Rev. Canon Quennell...	5	0 7	305 T	22·09	171
b†Loughton (High Beech) .....	Met. Water Board.....	8	1 0	376 A	23·92	189
b Theydon Bois (Thriffs Hall) ...	H. B. Debenham, Esq..	5	0 9	200	22·89	196
Southminster .....	H. Murton, Esq. ....	5	1 1	85 A	18·99	...
b Ingatestone (Fryerning) .....	A. E. Christy, Esq. ...	5	1 0	291 A	21·01	196
b „ { „ Furze Hall).....	E. H. N. Wilde, Esq..	5	1 0	285 T	22·49	204
„ { „ „ „ No.2 .....	Met. „ „ „ „ .....	5	1 0	285 T	21·75	...
b†Waltham Abbey.....	Met. Water Board.....	8	5 0	66 A	21·71	154
b „ „ (Gunpr. Factory)	The Superintendent ...	5	2 0	64 A	23·85	202
Epping (The Hemnalls) .....	J. Nicholl, Esq. ....	8	0 8	345	28·76	...
Bradwell-on-Sea (BradwellHall)	J.C.Chillingworth, Esq.	5	1 1	27	18·71	...
b Danbury Rectory .....	Rev.J.BridgesPlumptre	5	1 0	365 T	19·28	166
b Writtle (Melbourne).....	E. Rosling, Esq. ....	5	0 9	140 T	20·19	165
„ .....	R. Woodhouse, Esq. ...	8	2 0	100 ?	21·72	...
„ (The House).....	Miss Usborne .....	5	2 6	100	24·12	...
Chelmsford (High Street).....	F. Chancellor, Esq. ...	8	1 0	92 A	20·73	191
„ (CountyHortic.School)	C. W. Aylett, Esq. ...	5	1 0	...	21·07	...
b§ „ (Spergula) .....	J.C.Thresh, Esq., M.D.	5	1 0	136 T	21·39	180
b „ (Springfield Place)....	Miss Jackson .....	5	0 11	143 A	23·30	233
„ (Roxwell) .....	R. W. Christy, Esq....	5	1 0	180 T	21·90	...
Abbeß Roding Rectory .....	Rev. L. Capel Cure ...	8	1 0	300	22·59	...
Clacton-on-Sea (Jay Wick).....	J. Russell, Esq.....	5	3 0	20	17·78	...
„ „ „ (ClactonCollege)	H. Picton, Esq.....	5	0 9	40	17·65	...
b§ „ „ „ .....	Mr. A. W. Shadick ...	5	1 2	55 A	16·66	150
Great Clacton (Clay Hall) .....	Philip Smith, Esq.....	5	2 0	40 T	17·63	143
Brightlingsea Hall .....	J. Bateman, Esq. ....	5	0 10	74 A	19·54	...
b Witham (Terling Vicarage).....	H. C. Boutflower, Esq.	5	1 0	115 T	20·63	170
b Great Leighs (Lyons Hall) .....	J. H. Tritton, Esq. ...	5	3 0	130 A	21·46	161
b „ „ „ „ „ „ ) .....	„ „ „ „ „ „ „ .....	5	0 6	140 A	21·47	161
Kelvedon (White Barn) .....	W. & H. J. Shelldrake, Esqs.	5	1 5	135 T	20·43	...
b Fingringhoe (Ballast QuayFarm)	T. B. Grubb, Esq.....	5	2 0	47	21·27	158
b Colchester (Berechurch) .....	R. P. Blyth, Esq. ....	5	0 9	120 ?	21·32	144
b „ (BoroughSurveyor'sOffice)	H. Goodyear, Esq., C.E.	8	17 0	82 A	18·78	144
b „ (Hill House, Lexden)	S. F. Hurnard, Esq...	5	1 0	90 T	21·54	162
„ „ „ „ „ „ ) M .....	„ „ „ „ „ „ „ .....	5	1 0	90 T	21·45	...
„ „ (Home Farm, „ „ ) .....	Mr. W. Bird .....	5	1 0	125 T	21·03	...
Great Bromley .....	F. J. Baker, Esq. ....	5	1 0	120 ?	20·05	...
Braintree (Camoy's) .....	Miss Cunningham .....	5	1 0	220 ?	20·95	161
b „ (Bocking, Fennes).....	H. S. Tabor, Esq. ....	5	1 0	240 T	20·44	161
„ (Saling Grove) .....	Capt.J.Nicolls Harrison	8	1 0	300 A	18·44	...
Hassobury [Bishop Stortford] ...	T. S. Gosling, Esq. ...	...	...	290 ?	23·88	170
Earls Colne (Chalkney House)...	H. F. Hills, Esq. ....	5	1 0	188 T	21·56	178

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain.	Days with .01 or more recorded.	
		Diameter	Height Above Ground		Height Above Sea Level		1907
		in.	ft.	in.	feet.	inches.	
<b>ESSEX—(con.)</b>							
d Manningtree (Bradfield Lodge) ..	G. Hempson, Esq. ....	5	1	0	113 T	22·05	187
d Harwich (Hill House, Ramsey) ..	Miss K. Hempson .....	5	0	6	150	23·78	182
" (Coastguard Station) ...	Mr. W. Bevan .....	5	1	0	40	18·61	...
§ Halstead .....	Royal Meteorological Soc	5	1	0	144	20·75	171
d Lawford (Dale Hall) .....	W. H. Richardson, Esq.	5	1	0	110 T	22·76	181
d Dedham (Dalethorpe) .....	J. D. Tremlett, Esq....	5	1	1	54	21·72	180
Langham Rectory .....	Rev. T. S. Raffles .....	5	0	7	134	25·27	197
Great Maplestead (Monk's Lodge)	T. F. Miller, Esq. ....	5	0	9	245 T	23·75	...
d Newport (The Vicarage) .....	Rev. G. F. Tamplin ...	5	3	6	208 T	23·81	186
" (Wood Hall) .....	Charles Beadle, Esq....	5	1	0	380	24·76	...
d Saffron Walden .....	S. Leverett, Esq. ....	5	1	0	201 A	23·88	193
d " " (Audley End) ...	Mr. J. Vert .....	5	1	0	155 A	23·90	190
d Bulmer Lodge [Sudbury] .....	The Misses Burke .....	5	1	3	200 T	27·09	201
<b>SUFFOLK.</b>							
d § Felixstowe (West View) .....	S. Alexander, Esq.....	5	1	0	70	20·27	155
East Bergholt (Ackworth House)	A. Harwood, Esq. ....	8	1	6	145	22·31	199
d Ipswich (Woolverstone Park) ...	C. H. Berners, Esq. ...	8	1	0	100 T	23·01	187
d " (Orwell Park) .....	Mr. J. Wallis .....	8	1	0	60 A	24·23	179
d " (Belstead Hall) .....	Miss Wilson .....	5	1	0	100	23·53	163
d " (Rookwood, Copdock) ...	F. L. Bland, Esq. ....	5	1	6	170 T	23·28	209
d Alderton Rectory .....	Rev. C. G. Archer .....	8	2	2	35 ?	21·96	176
d Sudbury (Friars Street) .....	E. Ransom, Esq. ....	5	1	7	93 T	22·94	207
d " .....	Mr. J. Alexander .....	5	0	8	101 T	21·81	179
Bucklesham School .....	B. B. Taylor, Esq.....	15	1	3	50 ?	22·55	...
d Ipswich (Museum) .....	F. Woolnough, Esq....	8	0	10	74	23·56	182
" (Bishop's Hill) .....	Miss D. E. Biddell .....	5	1	0	104 A	25·87	...
d " (Parkside) .....	F. Turner, Esq. ....	5	1	0	125 T	21·50	176
d " (Dale Hall) .....	Percy Turner, Esq....	8	1	0	135 T	21·84	172
Waldringfield Old Rectory .....	Rev. T. H. Waller.....	8	1	2	60 ?	22·78	...
Boyton Rectory .....	Rev. A. Washington...	5	1	10	33 T	19·41	145
d Woodbridge Abbey .....	Col. R. J. Carthew ...	8	1	2	46 A	22·09	181
d " .....	" " " " .....	8	6	0	47	21·96	178
d " (Melton Asylum) ...	Dr. S. G. Longworth...	8	1	4	74 A	22·06	163
d Rendlesham Hall .....	Lord Rendlesham .....	5	1	0	88 A	21·75	161
Wickham Market (Campsea Ash)	Alfred Andrews, Esq...	14	2	0	80	22·06	163
d § Haverhill (Great Thurlow) .....	H. O. Stallard, Esq. ...	5	1	0	241 A	24·79	183
Clare (Stansfield) .....	J. Slater, Esq. ....	5	1	0	300 A	25·08	...
d " (Hawkedon Rectory) .....	Rev. B. P. Oakes .....	5	3	4	305 A	25·26	205
d Cockfield Rectory .....	Rev. Edwin Hill .....	5	1	0	305 T	24·28	192
Ash Bocking Vicarage..... No. 1	Rev. M. B. Cowell.....	5	1	0	231 A	23·31	161
" " " " ..... No. 2	" " " " .....	5	3	4	231 A	23·85	161
Charsfield Hall .....	Hugh P. Youngman Esq.	5	...	...	...	22·85	...
Parham (The High House) .....	H. R. Smith, Esq.....	5	1	0	93	24·31	...
d Aldborough (Aldringham Ho.)..	F. Garrett, Esq.....	8	4	5	50 B	22·51	167
d Great Glemham .....	Col. A. Bloomfield.....	5	0	10	80 T	25·30	155
Debenham Hall .....	<i>E. Anglian Daily Times</i>	...	...	...	...	24·14	...



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

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain.	Days with '01 or more recorded.
		Diameter	Height Above Ground	Height Above Sea Level	1907	
		in.	ft. in.	feet.	inches.	
SUFFOLK—(con.)						
D Little Saxham.....	Rev. H. I. Kilner .....	8	0 10	220	24·62	194
D Bury St. Edmunds (Westley) ...	R. Burrell, Esq.....	5	1 0	226 A	24·78	173
D „ „ „ (Fornham St. Martin) ..	Rev. J. S. Pratt .....	5	1 0	100	21·82	156
„ „ „ (Hengrave) .....	Mr. W. Nichol .....	5	1 2	91	22·20	...
Westleton (St. Helena).....	J. R. Grimsey, Esq. ...	8	2 0	65 A	27·21	158
D Ixworth (Walsham-le-Willows).	Miss M. C. Martineau..	5	1 0	...	24·55	171
Stradbroke Vicarage .....	Rev. Canon W. Tate...	5	1 3	172 T	25·96	...
Ixworth (Barningham) .....	Miss A. K. Lingwood..	8	1 0	136	22·51	...
D Elveden Hall .....	Viscount Iveagh, K.P..	5	1 0	130 T	24·33	236
D Halesworth (Rumburgh) .....	Rev. W. Linton Wilson	5	3 0	148 T	23·91	225
§ Brandon (North Court Lodge)...	Meteorological Office ...	5	1 6	40	22·97	140
D Beccles (Sotterley Hall) .....	Capt. Miles Barne .....	5	0 11	50 A	24·47	171
† Lowestoft (Belle Vue Park).....	Royal Meteorological Soc	5	1 0	86 T	21·40	172
D § „ „ (The Clyffe, Corton)...	R. J. Colman, Esq. ...	5	1 0	62 L	22·71	181
D „ „ (Lound Pumping Station)	Lowestoft Water & Gas Co.	8	1 0	34	23·49	178
Fritton [Yarmouth] .....	Mrs. H. E. Buxton.....	8	0 10	40	23·80	176
D Burgh Hall [Yarmouth] .....	H. P. Frederick, Esq...	8	0 6	45 T	22·47	190
NORFOLK.						
D Thetford (Waterworks) .....	Mr. E. S. Greenwood...	8	1 0	170 T	23·72	182
Kenninghall (Council School) ...	Roy. Meteorological Soc.	...	...	160 P	25·51	180
D Pulham St. Mary .....	W. G. Rutter, Esq. ...	8	1 0	...	26·06	155
D Santon [Brandon] .....	A. W. Preston, Esq....	5	0 10	32	23·31	176
D § Geldeston [Beccles] .....	E. T. Dowson, Esq. ...	5	1 0	38 A	22·51	211
§ „ „ [ „ „ ] .....	M „ „ „ „ „ .....	8	1 0	38 A	21·18	...
Long Stratton (Gt. Moulton Rec.)	Rev. T. D. Chute .....	5	1 0	60	24·91	...
D „ „ (The Beeches, Fritton)	Mrs. Howes .....	5	1 0	120 T	25·42	216
Raveningham Hall [Beccles] ...	N. H. Bacon, Esq. ...	8	1 3	...	22·97	...
D Saxlingham Nethergate .....	Mrs. Pitt .....	5	1 5	...	24·56	198
D Loddon (Langley Park) .....	Sir R. P. Beauchamp, Bt.	5	2 0	80	22·74	172
D Caston .....	Rev. W. H. Partridge.	5	1 0	148 T	24·62	208
D Wymondham .....	J. B. Pomeroy, Esq. ...	8	1 3	118 A	24·88	193
Watton .....	R. Martin, Esq.....	5	1 0	166 A	24·85	179
D Hingham .....	G. K. Dobbs, Esq.....	5	1 1	188 T	23·99	200
D Norwich (Dunston Hall) .....	A. W. Preston, Esq...	...	...	...	24·61	174
D Denver .....	„ „ „ „ „ .....	...	...	...	21·82	153
D Stoke Ferry (Wereham) .....	G. Read, Esq.....	5	2 3	66 T	25·33	200
D † Keswick Old Hall .....	E. Knight, Esq.....	5	1 0	90 P	25·33	207
D Hethersett .....	F. A. Bainbridge, Esq..	5	0 9	150 T	24·96	200
D Outwell Sluice .....	A. Lunn, Esq., C.E....	9	...	16	22·34	173
D Moulton .....	A. W. Preston, Esq....	4	...	...	21·74	172
Emneth .....	F. M. Bland, Esq.....	6	1 0	6	21·74	...
§ Yarmouth (Sailors' Home) .....	Meteorological Office...	8	4 0	12	21·87	198
D „ „ (Market Place).....	H. Palmer, Esq.....	5	1 0	...	22·62	202
D † Norwich (Christ Church Rd. Eaton)	A. W. Preston, Esq....	5	1 0	98	26·25	231
D „ „ (Postwick Hall) .....	Miss E. M. Cross .....	5	1 1	5	22·03	170
D „ „ (Carrow House) .....	Miss Colman .....	5	1 3	35 A	23·62	207

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

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain.	Days with -01 or more recorded.	
		Diameter	Height Above Ground		Height Above Sea Level		1907
		in.	ft.	in.	feet.	inches.	
NORFOLK—(con.)							
Norwich (Brundall) .....	A. W. Preston, Esq....	5	1	0	66	25·41	204
„ (Ipswich Road) .....	J. H. Willis, Esq.....	5	1	0	110	24·63	219
„ (Heigham) .....	A. W. Preston, Esq....	5	3	2	37	23·53	210
Acle.....	„ „ „ .....	5	0	6	51	24·89	229
Swaffham .....	W. H. Plowright, Esq. 5	5	5	0	250	23·82	172
„ (Homewood) .....	Messrs. Vynne&Everett 5	5	2	6	210	28·54?	...
Honingham .....	A. W. Preston, Esq. ....	...	...	...	...	23·56	207
Sprowston (Oak Lodge).....	T. Cozens Hardy, Esq. 5	5	1	0	101	24·19	215
Yarmouth (Ormesby St. Michael)	Gt.Yarmouth W.W.Co. 8	8	1	0	21	23·08	239
Sporle .....	A. W. Preston, Esq....	...	...	...	...	25·20	210
Swaffham (Dunham).....	„ „ „ .....	5	1	1	320	24·35	204
Drayton .....	„ „ „ .....	...	...	...	...	28·88	185
Wiggenhall (St. Germans Sluice)	A. Lunn, Esq., C.E. ....	8	1	6	...	21·35	151
Middleton Vicarage .....	Rev. H. E. Bishop .....	5	1	0	114	28·80	196
Gayton Pumping Station .....	J. H. Webb, Esq. ....	5	1	0	131	24·03	...
Bylaugh Park Gardens .....	Mr. G. Beeton .....	5	1	0	130	25·68	173
Coltishall .....	A. W. Preston, Esq. ....	...	...	...	...	21·60	174
Great Massingham .....	W. S. Freuer, Esq. ....	5	3	2	245	27·48	189
Reepham (Whitwell Vicarage)..	Rev. R. Freeman .....	8	1	6	130	24·28	202
Aylsham (Rippon Hall) .....	Major H. S. Marsham..	5	0	6	90	24·95	...
Cawston Rectory .....	Rev. T. H. Marsh .....	5	1	0	120	23·91	...
Aylsham (Woodgate) .....	R. J. W. Purdy, Esq... 5	5	1	0	100	25·09	173
North Walsham (Dilham) .....	A. W. Preston, Esq....	5	0	8	...	26·02	230
„ „ (Worstead) ..	R. Cross, Esq. ....	8	1	0	...	26·02	196
„ „ (EmpsonHouse)	W. S. Horn, Esq. ....	5	1	0	110	23·04	189
Hillington School .....	Rev. H. Ffolkes.....	5	3	6	93	25·69	198
Sandringham House .....	Mr. T. H. Cook .....	5	1	1	121	28·97	182
West Rudham .....	W. S. Freuer, Esq. ....	5	0	10	180	27·33	...
Cromer (Northrepps Hall) .....	Mrs. R. Gurney.....	5	0	4	200	26·39	204
„ .....	W. H. Archer, Esq. ....	8	1	0	197	21·98	213
„ (The Warren) .....	F. H. Barclay, Esq. ....	8	1	6	..	25·26	169
Burnham Overy Staithe .....	Rev. F. W. Walter .....	3	3	0	15	23·87	157
Blakeney .....	C. I. Temple Lynes, Esq. 5	5	1	3	29	24·26	153
Wells (Holkham Hall) .....	Earl of Leicester, K.G. 12	12	4	0	39	24·55	...

## DIVISION V.—SOUTH WESTERN COUNTIES.

## WILTSHIRE.

Landford (Northlands) .....	Mrs. Wigram .....	5	1	10	167	29·79	181
Downton (Wick House) .....	Dr. F. G. Penrose .....	8	0	5	120	30·20	180
Donhead St. Mary (Charlton Ho.)	Dowager Lady Wynford 5	5	0	7	514	35·91	219
Berwick St. John (Ferne) .....	Col. A. H. Charlesworth 5	5	1	0	500	40·28	192
Longford Castle .....	The Earl of Radnor ... 5	5	1	0	141	31·86	172
Alderbury .....	Rev. Canon Hutchings. 5	5	0	8	263	29·79	151
Tisbury (The Academy) .....	J. Bristol, Esq. ....	5	0	9	380	35·15	154
East Knoyle (Slades) .....	E. H. Miles, Esq. ....	5	1	0	560	34·85	209
Salisbury (Fowlers Hill) .....	Mrs. T. Awdry .....	5	2	0	225	28·45	159

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

STATIONS.	AUTHORITIES.	Diameter	Rain Gauge.		Depth of Rain.	Days with $\geq 0.1$ or more recorded.	
			Height Above Ground.	Height Above Sea Level	1907		
		in.	ft.	in.	feet.	inches.	
WILTSHIRE—(con.)							
D Salisbury (Brown Street) .....	T. H. Baker, Esq. ....	5	1	0	155 T	30.07	210
D „ (De Vaux Lodge) .....	H. Peniston, Esq. ....	5	1	0	150	30.94	193
„ (Wilton House) .....	T. Challis, Esq. ....	8	0	6	180 T	34.11	188
D Stratford-sub-Castle(The Manor Ho.)	J. Carpenter, Esq. ....	5	0	9	165 T	28.91	175
Mere (The Limes) .....	E. Bracher, Esq. ....	5	1	0	300	35.79	...
„ Vicarage .....	Rev. J. A. Lloyd ....	5	3	0	370 T	34.25	207
D „ (Charnage) .....	A. R. White, Esq. ....	5	1	0	426 T	34.32	205
D Codford St. Mary (Stockton Ho.)	G. Knowles, Esq. ....	5	1	0	260	31.67	183
Maiden Bradley .....	The Duke of Somerset.	8	1	6	626 T	40.74	200
D Warminster (Rye Hill) .....	S. E. Jefferys, Esq. ....	8	2	0	466 T	35.40	212
D Bulford (Manor House) .....	Mr. J. Bryan .....	5	1	0	242 T	29.00	173
Salisbury Plain (Chitterne House)	R. Hayward, Esq. ....	11	4	0	319 T	27.76	168
D „ „ (Shrewton) .....	F. J. Wardale, Esq. ...	5	0	9	322	32.24	194
Market Lavington .....	Miss A. P. Bouverie ...	5	0	10	290 T	29.47	182
D Ludgershall (Conholt Park) .....	E. A. Wigan, Esq. ....	5	1	3	800 T	31.39	188
D „ (Collingbourne Kingston)	Baldwin Latham Esq CE	5	1	0	470 T	29.43	165
D Trowbridge (Water Works, Biss)	W. W. Gray, Esq., C.E.	5	1	0	311	29.61	184
D „ (Rood Ashton) .....	Mr. W. Strugnell .....	8	1	6	250	32.48	198
D „ (Wingfield) .....	T. H. Clark, Esq. ....	5	1	0	190	30.23	180
D Devizes (Chirton Old Manor Ho.)	Mr. T. Selfe .....	5	3	0	370	31.66	185
D Bradford (The Chantry) .....	Dr. J. Beddoe, F.R.S.	5	0	9	125	30.42	183
D „ (Winsley Manor) .....	E. W. Knatchbull, Esq.	5	0	6	400	30.05	193
D „ (Bearfield House) .....	G. A. R. FitzGerald, Esq.	5	1	10	290 T	32.56	173
D „ (Holt) .....	A. J. Beaven, Esq. ...	5	1	2	120	32.63	233
D Devizes (Wilts Co. Asylum) ...	Dr. Ireland Bowes .....	8	2	3	385 T	28.45	183
D Buttermere Rectory .....	Rev. W. E. Burkitt ...	5	3	6	847	34.04	176
D Pewsey (Wilcot Vicarage) .....	Rev. W. Slater Sykes..	5	0	6	415 T	34.98	151
„ (Stowell Park) .....	J. H. Smith-Barry, Esq.	5	1	0	450	30.32	...
D Shalbourne (West Court) .....	Mr. T. Barns .....	5	1	0	640 ?	32.37	195
D Bishops Cannings .....	G. Ruddle, Esq. ....	5	1	0	446 T	30.64	170
D Devizes (Shepherd's Shore) .....	Mr. J. Carter .....	5	1	6	555 T	33.28	178
§ Marlborough (College) .....	Royal Meteorological Soc	5	1	0	425	29.32	223
D „ (Mildenhall) .....	Rev. Gordon Soames ...	5	1	0	456	31.48	174
D Calne (High Street) .....	H. Wilkins, Esq. ....	5	3	6	244 T	28.20	157
Chippenham (Langley Burrell)..	Rev. A. B. Mynors ...	8	1	2	250	30.45	...
D „ (Kington Langley).	H. H. Palairt, Esq. ....	8	1	0	270	30.64	196
Swindon (Burderop Park) .....	A. Ashford, Esq. ....	5	0	9	550 ?	29.77	152
D Wootton Bassett (The Lime Kiln)	H. Bevir, Esq. ....	5	1	6	422 T	28.10	181
D New Swindon .....	H. J. Southwell, Esq...	8	0	11	378	27.72	193
§ Malmesbury (Cowbridge House).	Royal Meteorological Soc	5	1	0	236	31.19	189
D „ (Charlton Cottage).	Countess of Suffolk ...	...	0	9	300	32.76	182
DORSETSHIRE.							
§ Portland Bill (New Lighthouse).	Meteorological Office ...	8	1	0	23	26.59	164
Weymouth (Wyke Regis) .....	Mrs. Pretor .....	5	1	0	158 T	29.60	179
D § „ (Westham) .....	I. J. Brown, Esq. ....	5	1	0	25	27.44	173

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

STATIONS.	AUTHORITIES.	Rain Gauge.				Depth of Rain.	Days with 0.1 or more recorded.
		Diameter	Height Above Ground.		Height Above Sea Level	1907	
		in.	ft.	in.	feet.	inches.	
DORSETSHIRE—(con.)							
D Weymouth (Massandra) .....	H. W. Green, Esq. ...	5	1	6	40 T	32.05	184
Swanage (Royal Victoria Hotel)	H. B. Vincent, Esq....	5	1	11	50 T	30.23	166
D Chickerell (Montevideo) .....	Mrs. Richardson .....	5	1	0	100	29.54	200
„ Rectory .....	Royal Meteorological Soc ...	...	...	...	112	27.79	202
D East Fleet (Fleet House) .....	Dorset Field Club .....	5	1	2	40	29.87	163
West Lulworth Vicarage .....	Rev. W. Percy Schuster	5	1	0	128 T	29.71	...
D East Lulworth Vicarage .....	Dorset Field Club .....	5	0	9	175	35.05	166
D Abbotsbury (New Barn) .....	J. C. P. White, Esq....	5	1	6	111 T	30.43	198
D Upwey (Portland W.W.) .....	R. S. Henshaw, Esq. C.E.	8	1	0	290 T	33.54	203
D Wareham (East Holme) .....	Gerald D. Bond, Esq... 5	5	1	0	24	33.25	154
D Winterbourne Monkton Rectory	Dorset Field Club ... ..	5	...	...	250 ?	35.12	176
D Winterbourne Herringstone .....	R. B. White, Esq. ....	5	3	1	200	37.01	171
D Wareham (Castle Gardens) .....	S. W. Bennett, Esq. ...	5	2	6	18	31.19	184
D „ (Binnegar Hall) .....	Lt.-Col. P. Farrer .....	5	1	0	65	35.70	153
D Abbotsbury (Littlebredy) .....	Dorset Field Club .....	5	0	6	350	35.21	156
D Winterbourne Steepleton .....	H. Stilwell, Esq. ....	8	1	0	316 T	39.17	202
D Dorchester Water Works .....	G. J. Hunt, Esq. ....	8	1	2	315 T	36.74	194
D „ (Wollaston House) ...	Capt. J. E. Acland .....	5	1	0	200 T	36.97	195
D Poole (Parkstone) .....	W. Symes, Esq. ....	5	1	3	160 T	30.26	177
§ „ „ (Heatherlands)	Meteorological Office ...	...	...	...	...	31.88	202
D Bourne Valley [Bournemouth] ...	H. W. Woodall, Esq... 8	8	1	3	84 T	29.56	164
D Lyme Regis (Colway Cottage) ...	Dr. J. Spurr .....	5	1	0	250	31.90	188
D Bridport (Coneygar) .....	H. Gordon, Esq., C.E. 5	5	1	0	110 T	29.15	173?
Charminster (Brooklands) .....	R. Dymond, Esq. ....	8	1	3	...	35.77	...
D Puddletown .....	Dorset Field Club .....	5	1	0	190	35.30	167
D Bere Regis (Barrow Hill) .....	Mr. A. Lucas .....	5	1	0	120	32.37	170
„ „ (Bloxworth Rectory).	Rev O. P. Cambridge FRS	5	1	6	205 T	32.89	...
D „ „ ( „ House) ...	Mr. F. G. A. Lane .....	5	1	6	118	33.56	174
Wimborne (Broadstone) .....	J. E. James, Esq. ....	5	1	0	240 T	29.45	...
D Maiden Newton (Cattistock Lodge)	Dorset Field Club .....	5	1	0	350	38.25	173
D Bere Regis (Longthorns) .....	Mr. S. Smart .....	5	1	0	...	33.79	179
D Sturminster Marshall (Bailie Ho.)	Rev. J. Cross .....	5	0	6	85	30.78	177
„ „ ( „ „) M	„ „ „ „	...	...	...	85	30.36	...
D Wimborne (Codford) .....	G. H. Batterbury, Esq. MD	5	0	9	69 T	31.57	181
D „ (Stoneham) .....	Horace J. Tuck, Esq... 5	5	1	0	200	28.60	170
D Beaminster Vicarage .....	Rev. A. A. Leonard ...	5	1	0	216 T	35.42	197
„ (Fleet Street) .....	J. Andrews, Jun., Esq. 5	5	1	0	200 T	35.25	202
Broadwindsor Vicarage .....	Rev. G. C. Hutchings.. 5	5	0	7	540 T	34.80	199
D „ (Blackdown House)	C. E. M. Pinney, Esq.. 5	5	0	9	515	38.98	204
D Evershot .....	R. Stanley Clarke, Esq. 8	8	1	2	600	40.02	222
D „ (Melbury House) .....	Mr. R. Rintoul .....	5	1	6	500	37.77	174
D Chedington Court .....	Mr. H. Birkinshaw ...	5	1	0	605	36.13	193
D Wimborne (Horton Vicarage) ...	Rev. G. Wellington ...	5	1	0	133 T	31.07	180
D Leigh Vicarage .....	Dorset Field Club .....	...	...	...	250 ?	34.22	192
D Holwell (Westrow) .....	Mr. H. Caines .....	5	1	0	252	33.11	186
Wimborne St. Giles (St. Giles Ho.)	Mr. W. E. Axford .....	5	1	0	180 ?	31.30	159
D Iwerne Courtney (Shroton) .....	Admiral R. Stopford ...	5	1	2	200 T	32.17	158

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

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain. 1907	Days with '01 or more recorded.
		Diameter	Height above Ground.	Height above Sea Level.		
		in.	ft. in.	feet.	inches.	
<b>DORSETSHIRE—(<i>con.</i>)</b>						
D Sturminster Newton (Riverside) ...	A. R. Hallett, Esq. ...	5	5 0	200	31·45	166
D " " Rectory ...	Rev. J. C. Mansel-Pleydell ...	5	2 7	180 †	32·33	174
D Sherborne Castle .....	Mr. T. Turton .....	5	1 0	195 †	30·31	205
D Shaftesbury .....	Dorset Field Club .....	5	1 2	722	31·78	197
D Buckhorn Weston Rectory .....	Rev. W. Hughes D'Aeth .....	5	1 0	285	28·25	197
D Gillingham .....	S. H. Stephens, Esq. ...	5	1 2	244 †	33·94	197
D " (Milton-on-Stour) ...	L. B. Matthews, Esq. ...	8	1 2	250	34·44	183
<b>SOUTH DEVON.</b>						
D Salcombe (Sandhills) .....	W. H. Pike, Esq. ....	5	1 0	118	40·00	211
\$ " .....	Royal Meteorological Soc	5	1 0	137	43·20	201
D South Huish .....	W. Balkwill, Esq. ....	5	5 6	68 †	41·71	...
D Kingsbridge (Collapit Creek) ...	Ashley A. Froude, Esq. C.M.G.	5	1 6	50 †	40·82	200
D " (Westcombe) .....	T. W. Latham, Esq. ...	5	1 0	100	51·71	209
D Start Bay (Slapton) .....	Horace G. Morgan, Esq.	5	1 0	130	45·39	222
D Revelstoke (Membland) .....	Mr. G. Baker .....	5	1 0	180 †	40·95	179
D Dartmouth (Redlap House) .....	L. Karslake, Esq. ....	5	1 1	220 †	37·21	215
D Ermington (Strode) .....	H. Gore Hawker, Esq.	5	1 0	125 B	45·76	212
D " (Thornham) .....	C. S. Pearse, Esq. ....	5	1 3	71 †	49·38	217
† Plymouth (The Hoe) .....	Meteorological Office ...	8	1 0	116 †	36·25	226
D " (Drake's Reservoir) ...	F. Howarth, Esq., C.E.	5	1 0	149 †	37·28	203
D Devonport (Rowdens Res.) .....	F. W. Lillierap, Esq., CE	5	1 0	201 †	33·50	200
D Brixham (Lindthorpe) .....	T. Lakeman, Esq. ....	5	7 0	120	38·41	198
D Ivybridge (Langham Hill) .....	Miss Glanville .....	5	1 0	400 †	53·53	233
D South Brent (Great Aish) .....	Miss Kingwell .....	5	1 0	500 †	63·86	229
D Totnes (Berry Pomeroy) .....	C. Barran, Esq. ....	5	1 0	185 †	46·65	193
D Bere Ferrers Rectory .....	Rev. F. T. W. Wintle.	5	1 0	100	45·99	210
D Bickley (Roborough Reservoir) ..	F. Howarth, Esq., C.E.	5	1 0	548 †	45·98	228
D Torquay (Cockington Court) ...	Roger C. Mallock, Esq.	5	1 0	180	39·85	...
\$ " (Princess Gardens) .....	F. March, Esq. ....	5	1 0	12	33·88	199
D \$ " (Cary Green) .....	" " .....	5	1 0	12	33·22	199
D Lee Moor Clay Works .....	T. Martin, Esq. ....	8	1 6	850 †	62·15	...
D \$ Buckfastleigh (Bossell Park) ...	J. Hamlyn, Esq. ....	5	1 6	200	56·62	219
D Totnes (Broadhempston) .....	Charles Mole, Esq. ....	5	1 0	156 †	43·50	201
D Yelverton .....	Dr. H. J. S. Liddell ...	5	7 0	627 †	60·90	228
D Sheepstor .....	M F. Howarth, Esq., C.E.	5	1 0	1024 †	56·96	...
D " (Red Stone) .....	" " " .....	5	1 0	763 †	61·89	246
D " (Burrator) .....	" " " .....	5	1 0	755	61·53	246
D " (Head Weir) .....	" " " .....	5	1 0	720	62·37	246
D Dartmoor (Lowery) .....	F. W. Lillierap, Esq., CE	5	1 0	890 †	54·28	248
D " (Deancombe Farm) ...	F. Howarth, Esq., C.E.	5	1 0	830 †	60·30	224
D " (Leather Tor Farm) ...	" " " .....	5	1 0	910 †	61·29	241
D " (Siwards Cross) .....	M " " " .....	5	1 0	1200 †	61·21	...
D " (Cramber Tor) .....	M " " " .....	5	1 0	1435 †	56·09	...
D Kingskerswell (Barton Hall) ...	Capt. H. Langford Brown	8	1 2	360 †	30·65	189
D " (South Hill) .....	E. A. Foster, Esq. ...	5	1 0	270 †	33·67	186

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

STATIONS.	AUTHORITIES.	Rain Gauge.				Depth of Rain. 1907	Days with +0) or more recorded.
		Diameter	Height Above Ground		Height Above Sea Level		
		in.	ft.	in.	feet.	inches.	
SOUTH DEVON—(con.)							
D Abbotskerswell (Court Grange)..	Mrs. Marcus Hare .....	5	1	1	150 B	43·84	211
D Ashburton (Holne Vicarage) ...	Rev. J. Gill.....	5	1	6	650 B	56·40	231
D „ (Dolbear).....	Maj. W. W. Battiscombe	5	1	0	300 T	47·75	198
D§ „ (Druid House).....	J. S. Amery, Esq. ....	5	1	0	572 T	49·74	215
D Newton Abbot (The Chestnuts)..	E. D. Wylie, Esq.....	5	0	6	100 T	35·52	186
Bickington Vicarage .....	late Rev. P. H. Owen..	5	1	0	400	40·59	174
D Teignmouth (Woodlands) .....	W. B. Harris, Esq. ...	8	1	2	98	30·26	185
D „ (Den Gardens) .....	Mr. G. Rossiter .....	5	1	0	20 T	30·82	183
D „ (Bonnicliff) .....	Capt. J. Horner.....	5	1	0	260 T	31·12	195
§ „ (Exeter Road) .....	W. C. Lake, Esq., M.D.	5	1	0	320	30·61	195
D§ Tavistock (Statsford, Whitchurch)	E. E. Glyde, Esq. ....	5	1	0	594 T	50·26	243
D „ (Public Library) .....	Mr. J. Quick .....	8	20	0	283 T	40·95	232
D Princetown (Huccaby House) ...	R. Burnard, Esq. ....	5	0	11	900 T	57·73	227
† „ .....	Mr. W. Lee .....	8	1	6	1390 T	81·70	...
§ „ (H.M. Prison).....	Royal Meteorological Soc	5	1	0	1360	80·67	225
Dartmoor (Leeden Tor).....	M F. Howarth, Esq., C.E.	5	1	0	1270 T	47·87	...
„ (N. Hessary Tor) No. 1	„ „ „	5	1	0	1625 T	58·56	...
„ „ „ No. 2	„ „ „	5	1	0	1502 T	58·28	...
† „ (Cowsic Valley).....	F. W. Lillierap, Esq., CE	8	1	6	1352 T	65·82	...
† „ (Black Dunghill) No. 5	„ „ „	8	1	0	1590 T	50·40	...
† „ (Beardown Tor) No. 3	„ „ „	8	1	0	1550 T	46·66	...
† „ (White Tor) ..... No. 1	„ „ „	8	1	0	1640 T	48·23	...
† „ (Devil's Tor) ..... No. 2	„ „ „	8	1	0	1785 T	44·50	...
† „ (Cowsic Head) ... No. 4	„ „ „	8	1	0	1580 T	65·55	...
Marytavy Rectory .....	Rev. Irvine K. Anderson	8	1	0	560 T	52·78	...
D Dawlish (Holcombe) .....	Louis C. J. Doxat, Esq., C.E.	5	0	11	180 T	26·85	168?
D „ (Blyth).....	Commander Plenderleath, RN	5	1	0	44 T	31·33	218
D „ (The Lawn).....	S. F. C. Churchward, Esq	5	1	0	18 T	30·55	208
„ (Thorns Reservoir).....	„ „ „	5	1	0	550 T	36·75	...
„ (Burrows Reservoir) ...	„ „ „	5	1	0	420 T	31·25	198
D Chudleigh (Ideford Rectory) ...	Rev. G. J. Ford.....	4	1	0	300 T	36·40	209
D Bovey Tracey (Colehays) .....	Mr. G. Heath.....	5	1	0	400	46·72	206
Milton Abbot (Endsleigh).....	Mr. F. Yole .....	5	1	0	180 T	43·39	..
D Lifton (Kelly House).....	Rev. Maitland Kelly...	8	2	6	462 T	40·07	226
Marystowe Vicarage .....	Rev. H. B. Grylls .....	5	1	0	400 T	37·98	...
D Coryton Rectory .....	Rev. H. N. Fowler ...	5	1	0	400	36·59	243
D Starcross (Cofton Vicarage) .....	Rev. C. F. Benthall ...	5	1	9	60	27·46	182
D Exmouth (Nidderdale) .....	Mrs. Herbert Stewart..	5	1	0	51	26·27	191
D „ (Manor Grounds) .....	S. Hutton, Esq., C.E...	5	1	0	13 T	26·55	191
„ (Filter Beds) .....	„ „ „	8	8	6	195	28·72	204
Chudleigh (Trusham) .....	Rev. Offley H. Cary ...	5	0	6	322 T	37·69	200
Budleigh Salterton (Squabmoor).	S. Hutton, Esq., C.E...	5	1	0	267	30·05	211
D East Budleigh (West Hill Lodge)	Mrs. H. J. Thurgood...	5	3	0	150 T	28·15	164
D „ „ (Otterton Vic.)...	Rev H Mackworth Drake	5	1	0	80	30·37	183
D „ „ (Bicton).....	Mr. J. Mayne.....	5	1	0	90	30·72	185
„ „ „ ( „ Common)	S. Hutton, Esq., C.E...	5	1	0	300	30·37	...
D Kenton (Southtown House) .....	Major G. H. Courtenay	8	2	6	56 T	31·22	189
D Polapit Tamar [Launceston] ...	R. C. Coode, Esq. ....	5	1	0	315 T	38·14	238

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

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain. 1907	Days with .01 or more recorded.
		Diameter	Height Above Ground.	Height Above Sea Level		
		in.	ft. in.	feet.	inches.	
<b>SOUTH DEVON—(con.)</b>						
d Moretonhampstead (Bullaton) ...	S.C. Chapman, Esq., C.E.	8	1 0	928 $\nabla$	42.59	231
d " (Mardon) ...	" " "	8	1 0	835 ?	41.03	231
d " (Kennick) ...	" " "	8	1 0	836 $\nabla$	41.66	264
d " (Laployd) ...	" " "	5	1 6	1030 $\nabla$	36.48	225
d " (Blackingstone) ...	" " "	8	1 0	1158 $\nabla$	44.68	228
d " Rectory .....	Rev. S. D. Dewey .....	5	1 0	600 B	42.47	230
Chagford (Frenchbeare) .....	Robert Stark, Esq. ....	4	1 0	1040 T	55.36	...
d " (Dartmoor Sanatorium) .....	Dr. A. Scott-Smith ...	5	1 3	750 T	47.33	191
§ Sidmouth (Sidmount) .....	Royal Meteorological Soc	5	1 0	149 $\nabla$	31.76	210
d Seaton .....	Mrs. Pattinson .....	5	0 10	25	31.15	197
d § Rousdon [Lyme Regis] .....	Hon. Lady Peek .....	5	1 0	516 $\nabla$	31.44	193
§ " [Lyme Regis] .....	M " " " .....	3	1 0	516 $\nabla$	30.40	...
d Cleveland [Lyme Regis] .....	Mr. J. F. Stobo .....	5	1 11	465 $\nabla$	33.52	197
d Exeter (Ide) .....	Mr. H. Payne .....	8	1 0	90 ?	34.61	202
† " (St. Thomas) .....	E. N. Snow, Esq. ....	5	0 8	65	32.13	179
d † " (Devon & Exeter Inst.) .....	J. E. Coombes, Esq. ...	5	13 7	155 $\nabla$	28.38	197
d † " (Elmfield House) .....	W. B. Heberden, Esq. CB	5	4 0	100 T	26.75	188
Cheriton Bishop .....	Lt. Col. E. C. Thwaites	5	1 0	575 ?	34.41	...
† Broad Clyst (Brockhill) .....	W. T. Bayne, Esq. LL.D.	5	1 0	80	28.56	204
d Ottery St. Mary .....	Mr. H. D. Badcock .....	5	4 0	170 B	34.68	192
Newton St. Cyres .....	Rev. J. A. Welsh Collins	5	1 0	145 T	33.47	235
d Upton Pyne (The Parsonage) ...	Rev. A. Hillyard .....	5	1 0	213 T	32.39	188
d † Brampford Speke Station .....	Mr. A. Tucker .....	5	1 0	83	27.93	166
" " (The Avenue Gdns.) .....	<i>Gardener's Chronicle</i> ...	...	...	...	31.62	...
§ Silvertown (Killerton) .....	Royal Meteorological Soc	10	2 0	161	27.55	198
d Beaworthy (Halwill Manor) .....	W. J. Harris, Esq. ...	5	...	535	46.38	202
d Crediton (Okefield) .....	Seymour F. Pope, Esq.	5	1 0	325 T	30.79	221
d " (Stockleigh Pomeroy) .....	Rev. T. H. Philpott ...	8	1 2	340 T	31.92	208
Honiton (St. Cyrus) .....	<i>Press-cutting</i> .....	...	...	...	36.51	...
d " (Combe Raleigh) .....	Lt. Col. M. James .....	5	2 4	500 T	35.15	207
d Chardstock Vicarage .....	Rev. A. Lewis .....	5	0 8	333	35.54	202
d § Culmpton .....	T. Turner, Esq. ....	5	1 0	202 T	33.34	212
d Dunkeswell Abbey Vicarage ...	Rev. W. P. Roberts ...	5	1 6	800 ?	38.14	187
d † Tiverton (Broomhill) .....	Mrs. Dickinson .....	5	1 0	380	33.39	205
d † " (Highfield) .....	General G. W. Hanson	5	1 10	450 T	39.88	234
d " (St. Peter Street) .....	Miss Gill .....	5	6 0	270 B	35.88	245
d Halberton .....	Capt. G. Izat, R.N. ...	5	1 0	240 T	33.43	190
d Uffculme (Bullmoor) .....	Miss M. E. Gowring ...	5	1 0	280	35.76	239
d Bampton (Huntsham) .....	H. Acland Troyte, Esq..	8	1 0	640 T	39.18	199
" (Wonham) .....	Mrs. J. R. Holland ...	5	1 0	530	34.86?	203
<b>NORTH DEVON.</b>						
d Okehampton (Oaklands) .....	General Holley .....	5	1 0	500 T	46.38	186
d Spreyton Vicarage .....	Rev. H. P. Knapton ...	5	1 0	800 ?	32.49	232
d Holsworthy (Dunsland) .....	W. Clifton Mogg, Esq.	5	1 6	495 $\nabla$	43.95	213
d Petrockstow (Heanton Satchville)	Mr. A. Eames .....	5	1 0	332 $\nabla$	39.34	210
d Dolton (Hilliers) .....	A. Smythies, Esq. ....	5	1 3	380 $\nabla$	36.35	162







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

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain. 1907	Days with .01 or more recorded.
		Diameter	Height Above Ground.		Height Above Sea Level.	
		in	ft.	in.	feet.	inches.
<b>CORNWALL—(<i>con.</i>)</b>						
D Launceston (Landue) .....	Miss S. E. Tregoning...	5	0	11	225 T	39.22 243
D Altarnon Vicarage .....	Rev. A. H. Malan .....	5	1	0	620 T	56.20 259
D Launceston (Tamar Terrace) ...	Captain L. Ching, R.N.	5	0	10	446	39.94 223
D Tintagel (K. Arthur's Castle Hotel)	W. Taylor, Esq. ....	5	1	0	245	35.40 214
Egloskerry (Tregear) .....	E. G. B. Lethbridge, Esq.	5	1	0	575	45.42 ...
North Tamerton (Ogbeare) .....	Mr. J. S. Bray .....	5	5	0	460 T	34.25 195
Stratton (Poughill) .....	Miss Field .....	5	1	0	200	40.73 228
Trwenstow Vicarage .....	Rev. H. Lynne Jones...	5	0	10	331 T	39.73 233
<b>SOUTH SOMERSET.</b>						
D Chard (Tatworth Vicarage) .....	Rev. H. Stuart King ...	5	1	3	347 T	37.57 194
Cricket St. Thomas (Cricket Ho.)	Mr. S. Lyon .....	5	1	0	444	36.27 198
D Crewkerne (Bincombe House) ...	Miss Sparks .....	5	1	2	294 T	31.88 201
D „ (Merefield House) ...	J. Tompsett, Esq. ....	8	14	5	240 T	35.11 205
Ilminster (Laurel Bank) .....	W. Beckwith, Esq. ....	5	1	0	180 T	32.20 ...
D „ (Whitelackington Ho.)	S. Creed, Esq. ....	5	3	0	200 T	32.63 196
D Yeovil (Gas Works) .....	E. Howell, Esq. ....	5	22	0	122 T	29.64 171
D „ (Sew. Wks., Pen Mill) ...	Dr. H. Page .....	5	1	0	101 T	30.74 221
D „ (Kingston) .....	J. H. Burt, Esq. ....	5	6	0	186 T	29.86 197
D South Petherton (Yeabridge) ...	Miss E. F. Blake .....	8	0	9	100 T	27.70 192
D Stoke-under-Ham .....	Miss Gillett .....	8	1	0	...	30.79 206
Henstridge .....	Mr. G. H. Hacker .....	5	1	1	270 T	33.84 218
„ (Inwood House Gardens)	Mr. C. Thomas .....	6	1	0	277 T	33.28 192
Taunton (Blagdon Reservoir) ...	H. T. Coles, Esq. ....	8	1	6	590 T	37.32 ...
„ (Leigh Reservoir) .....	„ „ „ .....	8	1	6	525 T	35.61 ...
D „ (Leigh Court) .....	A. Eastwood, Esq. ....	8	1	0	350 T	34.85 208
„ (Gatchell House) .....	W. L. Morris, Esq. ...	5	1	0	160 T	29.88 ...
D „ (Ashleigh) .....	W. A. Gunner, Esq. ...	5	1	0	78 B	27.96 188
„ ( „ ) .....	„ „ „ .....	5	12	6	78 B	26.61 180
D „ (Linden Grove) .....	H. Le B. Gunner, Esq.	5	1	0	70	27.84 201
Rimpton .....	H. H. G. Andrews, Esq.	8	3	0	100	26.89 190
Temple Combe Rectory .....	Rev. J. C. Fox .....	5	0	6	215	33.61 232
D Sutton Montis .....	Rev. W. J. Beck .....	5	8	2	...	28.96 204
D Milverton (Spring Grove) .....	C. Roberts Gawen, Esq.	5	0	8	500 T	33.16 224
Langport (Huish Episcopi) .....	Miss Kelway .....	8	1	1	30 ?	24.50 ...
D „ (The Grange) .....	Dr. H. Page .....	5	1	0	50 T	27.41 237
D Milverton (The Mount, Halse)...	Miss J. E. Smith .....	5	1	2	254	32.37 218
D Maperton Rectory .....	Rev. D. E. Norton .....	5	1	0	367 T	33.47 247
D North Cadbury Rectory .....	Rev. H. A. Boys .....	8	1	3	256 T	29.49 210
„ „ (Woolston) .....	„ „ „ .....	...	...	...	...	31.15 178
Wincanton (Holbrook) .....	Mrs. Angerstein .....	5	1	6	450 T	33.42 153
Somerton (Kingweston) .....	Rev. G. de Y. Aldridge	5	2	6	200 T	32.43 219
Cothelstone House .....	C. E. J. Esdaile, Esq. ...	5	1	0	430	35.89 208
D North Petherton (The Old Rectory)	E. C. Curtis, Esq. ....	8	0	6	136 T	33.15 221
Winsford Vicarage .....	Rev. Preb. Anderson ..	5	1	2	623	47.57 ...
Exford (North Ley) .....	Mr. F. G. Heal .....	5	5	6	1000	42.93 ...

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

STATIONS.	AUTHORITIES.	Rain Gauge.				Depth of Rain.	Days with 01 or more recorded.
		Diameter	Height Above Ground.		Height Above Sea Level	1907	
		in.	ft.	in.	feet.	inches.	
SOUTH SOMERSET—(con.)							
Simonsbath .....	Rev. H. F. Ramsey ...	5	1	3	1080 T	65·85	231
Bridgwater (Nurseries) .....	Mr. H. Corder .....	5	0	6	30 ?	29·42	180
„ (Ashford) .....	F. Parr, Esq., C.E. ...	5	1	5	102 T	32·48	181
Cannington (Brymore) .....	H. H. P. Bouverie, Esq. ...	5	1	6	65 T	31·12	176
Williton (Aller Farm) .....	Mr. T. Hosegood .....	5	3	6	190	33·78	...
Quantockshead (St. Audries) ...	Mr. F. S. Hayne .....	8	1	0	250 T	28·13	...
Holford (Woodlands House) ...	Miss I. L. Joseph .....	5	1	0	391 T	34·03	217
Stockland Bristol Manor House..	Rev. H. A. Daniel.....	5	1	0	65	31·22	175
Minehead (Mariansleigh) .....	T. F. Twist, Esq. ....	5	1	0	45 B	28·98	205
Porlock (Lynch Mead, Allerford)	J. Dyke Acland, Esq... ..	5	1	3	100 T	31·06	197
NORTH SOMERSET.							
Somerton (Butleigh Court) .....	R. Neville Grenville Esq. ...	8	1	2	95	31·11	184
Bruton (Sunny Hill) .....	F. K. Makins, Esq. ....	5	1	0	310	32·38	219
„ (King's School) .....	D. E. Norton, Esq.....	5	1	2	200	34·28	218
Street (Hind Hayes) .....	Joseph Clark, Esq.....	5	1	5	78 T	29·14	171
„ .....	W. S. Clark, Esq. ....	8	1	0	100	31·95	216
Edington .....	A. C. F. Luttrell, Esq..	5	2	6	90 T	34·75	196
Shepton Mallet (Pilton) .....	J. Dredge Allen, Esq... ..	5	1	3	354 ?	36·50	196
Glastonbury (Ynyswytryn) .....	Mrs. Swayne .....	5	1	8	245 T	30·46	211
Cranmore Hall .....	late Rt. Hon. Sir R. H. Paget, Bt.	8	1	0	600 T	41·45	220
Shepton Mallet (Charlton) .....	C. E. Burnell, Esq... ..	5	1	0	481 T	38·98	204
„ „ (Field House) .....	F. H. Berryman, Esq..	5	1	0	500	40·75	208
„ „ (Grammar School) .....	William Aldridge, Esq. ...	5	1	0	475	38·40	210
„ „ (Sewage Farm) .....	W. Reader, Esq. ....	5	0	8	310	40·31	211
Wells (Blue School) .....	A. T. Powell, Esq. ....	8	1	3	125 T	36·83	220
„ (The Deanery Gardens) .....	Mr. A. King .....	5	1	0	170 T	37·74	203
„ (Somerset & Bath Asylum) ..	Dr. W. E. Rutledge... ..	5	1	0	300	30·37	189
„ (Wookey Hole) .....	E. P. Foster, Esq.....	...	...	...	...	39·63	...
„ (Hillgrove) .....	„ „ „ .....	...	...	...	800 ?	49·38	205
„ (Priddy) .....	„ „ „ .....	...	...	...	785 ?	46·57	215
Burnham (Chalbury) .....	H. A. Smith Spark, Esq. ...	...	...	...	...	29·49	162
Frome (Mells) .....	Miss E. G. Horner .....	5	1	0	342 T	31·31?	199
„ „ „ .....	„ „ „ .....	...	...	...	...	36·65	...
„ (Orchardleigh) .....	Rev. W. A. Duckworth	8	0	10	303 T	29·38	193
„ (Beckington) .....	E. M. Nelson, Esq. ....	8	1	3	270 T	30·92	199
Stratton-on-the-Fosse (Downside Abbey)	Rev. F. P. Whiteside... ..	8	1	0	600 T	43·68	215
Chewton Mendip (The Priory) ..	The Earl Waldegrave... ..	5	1	5	550 T	47·00	233
„ „ (Waldegrave Ho.) .....	J. Hansford Hill, Esq..	10	4	6	450	44·29	...
Ston Easton .....	H. E. Hippisley, Esq. ....	5	3	0	480 T	41·67	209
E. Harptree (Sherborne Res., Litton)	J. A. McPherson, Esq. CE	5	1	0	338 T	39·33	203
„ „ (Harptree Court) .....	W. W. Kettlewell, Esq. ...	5	1	0	346 T	42·51	201
„ „ „ (Hill) .....	J. A. McPherson, Esq. CE	8	1	0	784	40·88	...
Blagdon (Nordrach-on-Mendip).	R. Thurnam, Esq., M.D. ...	5	0	4	862 T	50·55	233
Camerton Court .....	Miss Jarrett .....	5	1	0	340 T	35·79	158
Temple Cloud .....	Dr. Theodore Martin... ..	5	1	0	340 T	38·38	226
High Littleton Vicarage .....	Rev. A. M. Foster .....	5	1	0	442 T	34·44	218

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

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain.	Days with .01 or more recorded.	
		Diameter	Height Above Ground.		Height Above Sea Level		1907
		in.	ft.	in.	feet.	inches.	
NORTH SOMERSET—(con.)							
D Winscombe (The Down) .....	J. Grubb, Esq. ....	5	1	0	295 T	39.58	213
D Hutton Rectory .....	Rev. W. F. Rose .....	5	1	0	75 ?	34.81	202
D Banwell (Eversley) .....	Kenneth Anderson, Esq. ....	5	1	6	50 T	36.01	199
Blagdon .....	J.A.McPherson, Esq. CE	8	1	0	500	46.43	...
„ .....	„ „ „	8	0	8	115 A	39.18	194
„ (Coombe Lodge) .....	„ „ „	8	1	0	388 A	42.56	...
Nempnett (West Town) .....	„ „ „	8	1	0	263	37.30	...
D Pensford (Sutton Court) .....	Sir E. Strachey, Bt. M.P. ....	8	1	0	280	36.73	219
D Weston-spr.-Mare (Leycroft Ho.)	C. Brown, Esq. ....	8	1	0	15	34.22	197
§ „ „ „ (Town Hall)...	Royal Meteorological Soc	5	1	0	21	31.38	182
„ „ „ (Beaufort Rd.)	W. A. Fussell, Esq. ...	7	5	0	23 T	33.55	...
D „ „ „ (Worle) .....	Dr. St. John Kemm ...	5	1	0	...	33.38	215
Bath (Combe Hay Manor) .....	F. G. Smart, Esq. ....	5	1	0	...	37.25	211
D „ (Crossways, Monkton Combe)	M. J. Lipscomb, Esq. ....	5	1	0	180	36.06	177
Wrington (The Cottage) .....	Hubert C. Bristowe, Esq. ....	5	1	0	100 ?	33.12	200
D „ (The Rectory) .....	Rev. G. M. Ashdown ..	5	5	0	68	34.26	186
D „ (West Hay) .....	Miss Mary B. Harrison. ....	5	2	0	100 T	34.22	194
Chew Magna .....	J. A. McPherson, Esq. CE	5	1	4	180 T	35.59	191
D Pensford Vicarage .....	Rev. H. H. Tripp .....	5	1	0	245 A	34.70	190
D§ Bath (Henrietta Park) .....	Dr. W. H. Symons ...	5	1	0	67 A	32.32	195
D „ (Statutory Hospital) .....	„ „ „	5	1	0	520	35.05	187
D „ (Kingswood School) .....	„ „ „	5	1	0	620 A	34.34	178
D „ (Hampstead, Combe Park) ..	„ „ „	5	1	0	165 A	32.89	179
D „ (Somerset Place) .....	R. Lewis Lloyd, Esq. ...	5	0	10	350	36.38	217
„ (Charlcombe) .....	J. Dent Young, Esq. C.E. ....	8	2	0	325 T	31.61	198
„ ( „ Hamilton House) .....	F. E. Rogers, Esq. ...	5	1	6	742 T	34.73	155
D Batheaston .....	Col. Linley Blathwayt. ....	5	1	0	166 A	32.63	194
D „ Reservoir .....	J. Dent Young Esq., C.E. ....	6	2	0	248 A	33.53	206
Yatton (Chelvey) .....	J. A. McPherson, Esq. EC	8	0	8	60	30.93	168
Barrow Gurney Reservoir .....	„ „ „	5	1	6	300 A	37.33	209
D Long Ashton Estate Office .....	H. B. Napier, Esq. ...	8	1	0	134 A	33.62	174
D Clevedon (The Knoll) .....	Miss Woodward .....	5	1	0	120 T	31.91	181
D „ (Water Works) .....	E. Button, Esq. ....	5	0	9	28 A	31.92	212
Bristol (Coronation Road) .....	H. C. Martin, Esq. ...	5	0	10	50	30.13	...
Wraxall (Boys' School) .....	Ebenezer Brown, Esq. ....	5	1	2	...	33.92	212
D Abbots Leigh .....	Sir Henry Miles, Bart. ....	5	1	0	320 T	36.29	189
D† Failand House [Bristol] .....	Miss Agnes Fry .....	5	1	0	385 T	36.84	213
Clifton (Oakfield Road) .....	J. A. McPherson, Esq. CE	5	20	0	200	33.27	198

## DIVISION VI.—WEST MIDLAND COUNTIES.

## WEST GLOUCESTERSHIRE.

Monkswood Reservoir [Bath] ...	J. Dent Young Esq., C.E.	5	1	0	365 T	33.79	235
D Bristol Docks (Underfall Yard) ..	W. W. Squire, Esq., C.E.	8	19	6	45 A	27.87	200
„ (Telephone Avenue) .....	J.A.McPherson, Esq. CE	5	50	0	80	31.40	196
D Clifton (Harley Place) .....	Miss Hooper .....	5	1	5	260	33.50	213

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

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain.	Days with 0.1 or more recorded.
		Diameter	Height Above Ground	Height Above Sea Level	1907	
		in.	ft. in.	feet.	inches.	
W. GLOUCESTERSHIRE—(con.)						
D Clifton (Durdham Down) .....	Mrs. Dix .....	6	1 6	310	35.26	219
D „ (Pembroke Road) .....	R. F. Sturge, Esq. ...	8	0 10	215	35.25	204
D§ „ College .....	D. Rintoul, Esq. ....	8	1 2	230	34.51	201
D „ (Stoke Bishop) .....	H. L. P. Lowe, Esq. ...	8	1 3	230 T	35.28	197
„ „ „ Pitch and Pay) .....	C. Thomas, Esq. ....	5	1 3	264 B	39.30	...
D Bristol (Ashley Down) .....	P. W. May, Esq. ....	8	1 1	166 T	32.31	212
Westbury-on-Trym (CoteHouse) .....	Mrs. H. St. V. Ames...	8	1 3	243 A	34.61	202
Pucklechurch .....	Rev. S. G. Gillum.....	5	0 10	374 T	32.83	214
Avonmouth (Bristol Docks).....	W. W. Squire, Esq., C.E. 12	3	2 12	33.88	...	...
D Filton .....	F. W. Gayner, Esq. ...	5	2 0	200	30.32	198
D Winterbourne (Kendleshire) ...	J. Marsh, Esq. ....	5	1 0	170 T	31.71	184
D Frampton Cotterell (Park House) ..	H. H. Harding, Esq....	5	1 0	158 A	31.79	180
D Chipping Sodbury (Stanshawes Ct) ..	R. N. Hooper, Esq. ...	5	1 3	280 A	34.14	193
D „ „ (The Ridge) ...	P. Burges, Esq.....	5	1 4	375 T	32.85	204
Almondsbury (Over Court, Field) ..	R. C. C. Lippincott, Esq. 5	1 0	260 A	31.40	...	...
D „ „ „ Park) .....	„ „ „ .....	5	0 11	147 A	34.43	234
„ „ „ „ „) M .....	„ „ „ .....	5	1 0	147 A	33.21	...
D „ „ „ „ Garden) .....	„ „ „ .....	8	1 0	137 A	32.98	231
Badminton .....	Mr. W. Nash .....	5	1 0	407	33.78	189
D Wickwar Rectory .....	Rev. Canon R. J. Lyon	5	1 0	260 A	34.60	192
Tortworth Court .....	The Earl of Ducie .....	8	1 0	264	33.03	187
„ School .....	„ „ „ .....	...	...	280 P	33.04	...
D Sedbury Park [Chepstow] .....	Sir W. H. Marling, Bart. 8	1 0	175 T	34.91	193	...
D Pen Moel [Chepstow] .....	Mrs. Price .....	5	1 0	240 T	38.10	231
§ Dursley .....	Meteorological Office ...	5	1 0	257	34.67	...
D Berkeley (Castle Gardens) .....	Mr. R. Shore .....	5	1 6	62 T	33.45	174
D „ (Sharpness Docks).....	F. A. Jones, Esq., C.E. 5	3 6	50	30.28	184	...
D Chalford (Hyde House).....	Piers F. Legh, Esq. ...	5	1 6	527 T	32.33	197
Lydney .....	E. R. Case, Esq.....	8	5 0	20 T	31.15	164
D „ (Clanna).....	Captain W. B. Marling	5	1 0	260 T	39.70	169
D Stroud (Stanley Park) .....	Sir W. H. Marling.....	8	1 0	365 T	32.90	168
D „ (Upfield).....	Miss Stanton .....	5	1 0	226 A	31.60	197
D Stonehouse (Wycliffe College)...	W. A. Sibly, Esq. ....	5	1 0	125	30.82	180
„ (Parklands) ... No. 1 .....	W. Grey Robinson, Esq. 8	2 6	103 T	28.80	187	...
„ „ „ „) ... No. 2 .....	„ „ „ .....	5	1 6	...	28.87	183
D Whitminster .....	F. A. Jones, Esq., C.E. 5	1 0	32 A	29.97	185	...
Haresfield Court .....	Mr. S. Pearce .....	5	1 0	100	30.14	188
D Harescombe Grange .....	Miss Mary Hutton.....	5	1 0	545 A	30.30	221
§ Forest of Dean (Whitemead Park) ..	Meteorological Office... 8	1 0	200	35.80	160	...
„ „ „ (Blakeney Hill Lo.) .....	„ „ .....	8	1 0	700	31.84	166
„ „ „ (Worcester Lodge) .....	„ „ .....	8	0 11	550	31.97	171
„ „ „ (Braceland) .....	„ „ .....	8	1 0	500	39.47	172
„ „ „ (Edgehills Lodge) .....	„ „ .....	8	1 0	700	36.27	182
„ „ „ (Ruardean Hill Lo.) .....	„ „ .....	8	1 0	900	38.17	189
D Longney Vicarage .....	Rev. W. E. Stewart ...	5	1 0	55 T	26.76	195
D Westbury-on-Severn (Chaxhill) ..	Mrs. Grant .....	5	3 0	122 T	31.04	185
Quedgeley House .....	Col. Curtis Hayward... 5	1 0	65 T	31.64	189	...

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

STATIONS.	AUTHORITIES.	Rain Gauge.				Depth of Rain.	Days with "01 or more recorded.
		Diameter	Height Above Ground		Height Above Sea Level	1907	
		in.	ft.	in.	feet.	inches.	
<b>W. GLOUCESTERSHIRE—(con.)</b>							
Birdlip Hill (The Knap) ... No. 1	A. S. Helps, Esq. ....	5	1	0	800 N	31·30	195
" " ( " ) ... No. 2	" " " " " " .....	5	1	0	800 N	31·88	197
Witcombe Reservoir .....	R. Read, Esq., C.E. ...	8	3	0	297 N	30·90	169
Mitcheldean (Blaisdon) ...	A. L. Statham, Esq....	5	1	0	117 N	29·41	...
Gloucester (Belgrave Road) .....	W. Piffe Brown, Esq...	5	1	0	52 T	28·08	187
" (Denmark Road).....	A. J. Stephens, Esq. ...	5	1	0	53	28·88	...
" ( " " ).....	Harley Butt, Esq.....	5	1	5	79 T	29·11	...
" (Barnwood Vicarage). ..	Rev. F. H. Fowler.....	5	1	0	80	31·57	190
" (Llanthony Lock) ...	E.D. Marten, Esq., C.E.	5	1	2	39 N	27·58	194
" (Wotton Asylum) .....	Dr. E. F. Kough .....	8	0	9	88 N	28·79	163
Dowdeswell Reservoir .....	J.S.Pickering, Esq., C.E.	5	0	10	357 T	32·07	153
Gloucester (Maisemore Lock) ...	E. D. Marten, Esq., C.E.	5	1	1	39 N	28·51	191
Charlton Kings (The Grange) ...	Miss E. M. Heberden...	5	0	9	300	30·80	170
Cheltenham (Northfield) .....	J.S.Pickering, Esq.C.E.	8	5	0	637 N	31·75	185
" (Hewletts Res.) ...	" " "	8	1	6	419 N	29·66	183
" (Sandford Mead) ...	" " "	5	2	6	210 T	28·64	160
" (Kemerton Lodge)...	Rev. Percy Burd .....	5	1	0	211	26·76	193
\$ " .....	Royal Meteorological Soc	5	1	0	185	29·00	174
D " (Prestbury) .....	J. W. Guy, Esq. ....	5	0	10	...	31·46	198
D Winchcombe .....	J. Halliwell, Esq. ....	5	1	2	295 T	33·11	186
Tewkesbury (Upper Lode) .....	E.D. Marten, Esq., C.E.	5	1	0	41 N	26·94	163
Wormington Grange ..... (R)	R. E. S. Thomas, Esq..	8	0	10	200	28·73	...
<b>EAST GLOUCESTERSHIRE.</b>							
Fairford (Kempsford) .....	A. T. Iles, Esq.....	5	1	0	250 ?	25·71	191
" (The Close) .....	W. Cobbett Arkell, Esq.	5	1	9	...	28·28	171
" (Draycott) .....	C. W. Edmonds, Esq...	5	2	0	200	29·14	175
" (The Croft House).....	C. H. Bloxsome, Esq...	5	1	0	300	28·73	150
D Lechlade (Claydon House) .....	T. T. S. Metcalfe, Esq..	5	1	0	250 N	26·19	198
" (Southrop Manor) .....	Thomas Arkell, Esq....	...	1	0	...	26·88	...
D\$ Cirencester (Roy. Agricultl. Coll.)	Prof. P. G. Gundry ...	5	0	10	443	29·92	176
D " (Cripps Mead).....	Mrs. Wilfred Cripps ...	5	0	8	366 N	31·93	204
D " (Dollarward House)..	C. P. Hooker, Esq. ...	5	1	6	366	32·39	206
D " ( " " ).....	" " " " " " .....	8	1	6	366	32·03	206
D " (Further Barton) ...	" " " " " " .....	5	1	0	422 N	33·14	209
D Fairford (Hatherop Castle) .....	Gardner S. Bazley, Esq.	5	1	0	410 T	31·13	203
D Great Barrington .....	H. J. Barrett, Esq. ...	5	1	6	430 T	31·62	175
D Northleach (Sherborne House) ...	Mr. A. Mitchell.....	5	1	0	420	33·73	180
D " (Leygore Manor).....	Arthur E. Moss, Esq...	5	1	0	700	32·68	198
D Bourton-on-the-Water.....	E. W. Kendall, Esq....	5	1	6	434 T	33·18	176
" " " (Chardwar)	G. F. Moore, Esq. ....	5	2	6	430	35·81	163
D† Chipping Campden (Hidecote Ho.)	Major W. Wright .....	5	1	0	525	27·77	175
D Mickleton .....	M. J. Salter, Esq. ....	5	1	0	233 T	25·57	183
<b>HEREFORDSHIRE.</b>							
D Whitchurch (The Tump) .....	A. E. Paddock, Esq....	5	1	0	234 T	34·85	221
D Walford-on-Wye Vicarage ....	Rev. Kentish Bache ...	5	3	0	112 T	34·88	210



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

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain.	Days with .01 or more recorded.
		Diameter	Height Above Ground		Height Above Sea Level	1907
		in.	ft.	in.	feet.	inches.
SHROPSHIRE—(con.)						
D Bromfield .....	F. Brayshaw, Esq.....	5	1	0	300 T	30·51 201
D Craven Arms (Stokesay Court)...	Mr. J. R. Francis .....	5	0	9	432 T	29·58 158
D Clunbury Vicarage .....	Rev. W. Clark Maxwell .....	5	1	0	497 T	32·60 176
D Craven Arms (Stokesay Vicarage)	Rev. W. M. D. La Touche .....	5	1	0	372 T	30·61 197
D Culmington Manor .....	J. H. Ismay, Esq. ....	5	1	0	536 T	31·88 216
D Hopesay Rectory .....	Rev. R. J. Roberts ...	5	1	0	565 T	32·73 203
Bishops Castle (Totterton) .....	W. H. Whitaker, Esq. ....	5	0	7	700	34·26 ...
D „ „ (Castle Street) ...	E. Griffiths, Esq. ....	5	2	0	720 B	32·60 202
D „ „ Vicarage .....	Rev. C. E. Warner ...	5	1	6	596 T	36·31 218
„ „ (More Rectory)...	Rev. Ridley Relton ...	6	0	11	600 T	32·39 ...
Bridgnorth (Coton Hall) .....	E. M. Wakeman, Esq. ....	5	1	6	460	28·77 186
D Church Stretton (Sewage Works)	E. J. Marsh, Esq. ....	5	1	0	582 T	35·65 209
D†Bridgnorth (Hookfield House)...	Rev. Preb. F. Burd ...	5	0	11	273 T	28·30 220
„ (Cantreyn) .....	Rev. H. M. Stallybrass ...	...	...	...	...	27·33 190
D „ (Aldenharn Park) ...	Mr. T. Canning .....	5	3	9	430 T	27·45 157
D Church Preen (Preen Manor) ...	Mr. J. Hopkins .....	5	1	0	700 T	29·29 171
D Church Stretton (Wolstaston) ...	Mrs. E. D. Carr .....	5	1	0	800 T	36·00 206
D Much Wenlock (Wiley Park)...	Lord Forester .....	5	1	0	502 T	28·38 204
Pontesbury (Somerville) .....	Miss H. M. Croft .....	5	1	6	355 T	29·18 ...
Minsterley (Hampton Hall) .....	J. Whitaker, Esq.....	...	1	0	630 T	33·47 ...
D „ (Wallop) .....	Mrs. Severne .....	8	1	8	700 T	37·95 216
D Westbury (Winsley Hall) .....	Gen. Hon. W. H. Herbert .....	12	1	6	365 T	31·04 226
D Shifnal (Hatton Grange) .....	late Col Rt Hon Kenyon-Slaney .....	5	4	4	262	27·91 222
D „ (Neachley).....	Col. Hon. F. Bridgeman .....	5	1	6	280 T	31·34 225
D „ (Haughton Hall) .....	W. J. Brooke, Esq.....	5	3	0	355 T	28·60 202
D Shrewsbury (The Abbey House)	Miss F. Rouse Boughton .....	8	1	3	171 T	25·43 198
„ (Corporation Yard)...	W. Chapple Eddowes Esq .....	8	1	3	174 T	28·57 176
§ „ .....	Meteorological Office ...	8	1	0	212	25·54 197
D „ (Highfield) .....	T. M. Howells, Esq. ...	5	4	6	250 T	26·87 198
§ „ (Roden).....	Royal Meteorological Soc .....	8	1	0	209	26·87 198
D „ (Fitz Rectory).....	Rev. W. Brewster... ..	5	1	2	238 T	26·75 221
D „ („ Manor) .....	Major J. F. Horner ...	5	1	4	253 T	26·51 205
D Newport (Aston Hall) .....	Col. R. Leeke.....	5	1	4	280 T	29·16 218
D „ (Agricultural College)...	P. Hedworth Foulkes Esq .....	5	1	0	220	26·68 201
D „ (Edgmond).....	J. Bodenham, Esq. ...	8	1	0	261 T	28·64 221
„ („)..... weekly	„ „ „ „ „ „	5	1	0	261 T	28·50 ...
D Cheswardine (Knighton Res.) ...	G. R. Jebb, Esq., C.E. ....	8	0	3	351 T	32·94 232
D Oswestry (The Mount Reservoir)	G. W. Lacey, Esq., C.E. ....	5	1	0	698 T	35·54 213
Market Drayton (Buntingsdale)...	Mrs. Tayleur .....	8	3	0	276 T	31·06 ...
Ellesmere (The Grange) .....	C. H. Ashton, Esq. ...	5	0	10	340	32·28 221
STAFFORDSHIRE.						
D Netherton (Lodge Farm Res.) ...	G. R. Jebb, Esq., C.E..	5	1	0	445 T	26·31 177
D Dudley (Shavers End) .....	H. A. Hill, Esq., C.E..	5	1	0	744 T	28·15 186
D West Bromwich.....	A. D. Greatorex, Esq. CE	8	4	9	546 T	28·07 169
D Wombourne (The Bratch) .....	Baldwin Latham Esq CE	5	0	9	271 T	27·34 210
D Wednesbury (Ocker Hill).....	G. R. Jebb, Esq., C.E.	5	0	8	474 T	26·65 186



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

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain. 1907	Days with '01 or more recorded.
		Diameter	Height Above Ground		Height Above Sea level	
		in.	ft.	in.	feet.	inches.
STAFFORDSHIRE—(con.)						
D Walsall (Brockhurst Sew. Farm)	R. H. Middleton, Esq. CE	8	0	11	376 $\nabla$	33·52 190
D „ (Wednesbury Sewage Wks.)	T. Wicks, Esq. ....	5	2	8	381 $\nabla$	27·11 193
D Bilston (The Lunt Outfall) .....	J. P. Wakeford, Esq., CE	5	0	9	406 $\nabla$	28·81 196
† Wolverhampton (Graiseley) ...	R. E. W. Berrington, Esq	6	0	9	506 $\nabla$	28·63 158
† „ (Town Hall) ...	G. Green, Esq., C.E....	5	15	6	481 $\nabla$	26·76 192
† „ (West Park) ...	„ „ „ „	5	1	4	432 $\nabla$	27·18 203
D „ (Wrottesley) ...	Mr. E. Simpson .....	8	1	0	500	25·44 170
D Patshull Park.....	The Earl of Dartmouth	8	1	3	273	30·99 170
D Tamworth (Bonehill House).....	Mrs. Chichester .....	5	1	0	289 $\nabla$	23·18 179
D Bloxwich (Sneyd Res.) .....	G. R. Jebb, Esq., C.E..	5	1	0	507 $\nabla$	27·68 175
D Hammerwich (Cannock Chase Res)	„ „ „ „	5	1	0	475 $\nabla$	26·66 193
D Weston Park [Shifnal].....	The Earl of Bradford...	5	1	6	400 $\nabla$	29·42 186
D Brewood (Belvide Reservoir) ...	G. R. Jebb, Esq., C.E.	8	1	0	367 $\nabla$	28·92 185
D Lichfield (St. John Street) .....	Dr. F. M. Rowland ...	5	0	10	269 $\nabla$	27·21 206
„ (Maple Hayes) .....	A. O. Worthington, Esq.	5	0	11	380 $\nabla$	24·74 ...
D Penkridge (Rodbaston) .....	Mrs. H. Ward .....	5	1	0	324 $\nabla$	30·34 177
D Hednesford (Scout House) .....	H. A. Hill, Esq., C.E..	5	1	0	750 $\nabla$	25·96 165
Wichnor Park .....	Basil Levett, Esq. ....	5	0	8	100 ?	27·70 ...
D Church Eaton Rectory .....	Rev. S. Wickham Jones	8	0	8	298 $\nabla$	28·64 213
Shugborough .....	The Earl of Lichfield...	5	1	0	260	30·17 231
D Burton (Hoar Cross) .....	F. W. Lycett, Esq. ....	8	1	0	400 $\nabla$	31·40 168
D „ (Rangemore) .....	Mr. W. Bennett.....	5	5	6	424 $\nabla$	31·85 190
D „ (Shobnall) .....	Messrs. Bass & Co. ...	5	5	6	156 $\nabla$	29·13 185
Stafford (Eastgate Street).....	the late Dr. C. H. Greaves	5	1	2	...	27·42 ...
„ (Tipping Street) .....	W. Fred. Wright, Esq.	5	2	6	258 $\nabla$	28·65 195
„ (West Bank, Doxey) M	Leslie Wilson, Esq. ...	5	0	6	280 $\nabla$	28·01 ...
D Eccleshall (Walton Hall) .....	Sir H. A. Wiggin, Bart.	5	1	3	344 $\nabla$	30·98 194
D Hanbury Hall .....	Miss Caroline M. Bott..	5	0	11	483 $\nabla$	31·86 196
D Market Drayton (Old Springs)...	F. E. Harding, Esq. ...	5	1	0	423 $\nabla$	30·08 215
D Maer Hall Gardens .....	F. J. Harrison, Esq. ...	8	1	6	390 $\nabla$	35·98 209
§ Cheadle (The Heath House).....	Roy. Meteorological Soc.	5	0	6	647 $\nabla$	31·92 207
D Longton (The Meir) .....	G. B. H. Soame, Esq. C.E.	5	1	0	618 $\nabla$	25·62 183
D Betley Hall [Crewe] .....	Col. J. A. Macdonald...	5	1	0	270	32·15 220
Stoke-upon-Trent (Glebe Street)	H. H. Goddard, Esq....	5	1	8	430 $\nabla$	30·41 ...
D „ „ „ (Hartshill) ...	late J. Knight, Esq. ..	5	1	0	485 $\nabla$	32·43 224
D Mayfield House [Ashbourne] ...	Graham C. Lawson, Esq.	8	1	0	374 $\nabla$	36·66 209
D „ „ „ [ „ ] <i>Snow g.</i>	„ „ „ „	8	1	0	374 $\nabla$	35·94 209
D „ „ „ [ „ ] <i>weekly</i>	„ „ „ „	8	1	0	374 $\nabla$	35·69 ...
D Leek (Wall Grange) .....	G. B. H. Soame, Esq. C.E.	5	1	0	458 $\nabla$	36·67 210
Knypersley Reservoir .....	H. Curbishley, Esq. ...	5	3	1	550 $\nabla$	34·45 ...
Leek (Rudyard Reservoir) .....	„ „ „	5	12	7	500	32·41 ...
WORCESTERSHIRE.						
D Blockley (Upton Wold).....	E. W. Arkell, Esq. ...	5	1	0	...	33·28 164
Northwick Park.....	The Lady Northwick...	8	1	6	410 $\nabla$	30·62 ...
Shipston (Tidmington House) ...	Miss Staunton .....	5	1	1	...	28·48 ...
Upton-on-Severn (Willow Bank)	J. Selwyn Cowley, Esq.	5	1	3	42	28·73 179
D „ „ „ (The Eades)...	Major E. W. Tennant..	5	0	9	100 $\nabla$	29·81 217

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

STATIONS.	AUTHORITIES.	Rain Gauge.				Depth of Rain.	Days with .01 or more recorded.
		Diameter	Height above Ground.		Height above Sea Level	1907	
		in.	ft.	in.	feet.	inches.	
WORCESTERSHIRE—(con.)							
D† Evesham (Eastwick) .....	C. Burlingham, Esq....	5	1	0	110	24·73	158
† „ (Lansdowne) .....	R. Burlingham, Esq....	6	5	0	108 †	24·99	...
Pershore (The Poplars) .....	J. F. Miller, Esq. ....	5	1	6	104 †	25·17	...
D Gt. Malvern (British Camp Res.)	W. Osborne Thorp, Esq., C.E.	5	0	11	677 †	30·94	185
D „ „ (Church Street).....	„ „ „	5	1	0	350 †	32·31	189
D§ „ „ (Belle Vue House)...	A. Mander, Esq.....	5	4	0	520	31·54	195
D „ „ (Madresfield Court)...	Mr. W. Crump .....	8	2	6	125 †	27·25	188
D Shipston (Talton) .....	Capt. G. Lainson Field	8	1	0	160 †	22·53	175
D Kempsey (Draycott House) .....	Col. C.E. Southouse Scott	5	1	0	55	27·18	185
D Worcester (Boughton Park).....	Mrs. Isaac .....	5	0	8	82 †	28·07	184
„ (Bromwich House) ...	Rev. Canon T. Littleton Wheeler	5	0	10	86 †	25·86	178
D† „ (Diglis Lock) .....	E. D. Marten, Esq., C.E.	5	1	0	49 †	26·03	197
D† „ (Belmont Road) .....	G. B. Wetherall, Esq..	5	1	6	180 †	26·06	190
D† „ (Water Works) .....	T. Caink, Esq., C.E. ...	5	0	9	56 †	24·82	187
D „ (Bevere Lock) .....	E. D. Marten, Esq., C.E.	5	1	1	52 †	26·20	172
D Droitwich (Himbleton Manor) ...	Lady Douglas Galton...	5	1	0	188 †	27·16	153
D Worcester (Hawford Lodge) .....	F. Ames, Esq.....	5	1	1	70	28·30	167
D Martley .....	Rev. J. F. Hastings ...	5	1	0	250 †	29·16	183
D Droitwich (Holt Lock) .....	E. D. Marten, Esq., C.E.	5	1	1	55 †	26·16	161
Shelsley Walsh .....	Miss M. Constance Hadley	5	0	8	164 †	32·29	...
Tenbury (Rochford Rectory) ...	Rev. J. Tomson .....	5	1	0	317 †	29·55	164
D Redditch (Hewell Gardens) .....	Mr. A. A. Pettigrew ...	5	1	0	469 †	28·40	200
D Bromsgrove (Tardebigge Res.)...	F. A. Jones, Esq. C.E.	5	3	0	433 †	26·94	181
D „ (Barnt Green, Upwood) .....	Miss M. Gibbins.....	5	0	9	650 †	24·53	180
D Stourport (Lincombe Lock).....	E. D. Marten, Esq., C.E.	5	1	0	62 †	25·08	193
D „ (Areley Hall) .....	S. Zachary Lloyd, Esq.	5	0	9	70 †	27·79	179
D Bromsgrove (Lower Bittal Res.)	F. A. Jones, Esq., C.E.	5	3	0	430 †	28·06	197
D† Bewdley (Beaucastle) .....	George Baker, Esq. ...	5	0	9	450 †	24·63	176
D† „ (Winterdyne).....	Miss K. M. Sturt .....	5	1	0	100 ?	23·78	171
„ „ „ 2nd g. M	„ „ „	...	...	...	100 ?	26·87	...
D† Kidderminster (Prospect Hill)...	Mr. J. T. Cowderoy ...	5	1	0	160 †	22·78	183
„ (Honeybrook Ho.) .....	Col. R. Talbot Watson..	5	0	9	75	27·60	...
D Northfield (Longbridge Place) ...	Mrs. Frederick Impey..	5	0	7	560 †	28·79	181
D „ (West Heath House).....	Prof. Adrian J. Brown	5	1	0	...	29·26	203
D Halesowen (Frankley) .....	E. Antony Lees, Esq...	5	0	10	570 †	30·56	187
D Kings Heath (Brandwood House) .....	G. F. Lyndon, Esq. ...	5	1	0	550 †	28·84	209
Selly Oak (Lodge Hill Cemetery) .....	Mr. W. Garden .....	5	1	4	540 †	30·37	171
Stourbridge (Pedmore) .....	E. B. Marten, Esq., C.E.	8	0	11	350 †	28·57	208
„ (Longlands) .....	„ „ „	8	0	9	258 †	26·03	196
Stechford (Trebortha House) ...	H. H. Newark, Esq....	5	1	3	360 †	25·63	...
Moseley (Prospect Road) .....	Rev. F. Oscar Lane ...	5	1	0	550 †	29·26	...
D Sparkhill [Birmingham] .....	D. H. Owen, Esq. ....	5	1	0	430 †	29·86	203
Dudley (Trindle House) .....	E. B. Marten, Esq., C.E.	8	1	0	575	29·41	202
D „ (Borough Cemetery) ...	J. Gammage, Esq., C.E.	5	2	3	591 †	27·68	193
WARWICKSHIRE.							
Long Compton (Weston Park)...	H. A. Warriner, Esq...	8	3	0	510 †	28·63	178
Shipston (Honington Vicarage)...	Rev. E. H. Boddington	5	0	10	215 †	25·12	177



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

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain.	Days with 0.1 or more recorded.
		Diameter	Height Above Ground	Height Above Sea Level	1907	
		in.	ft. in.	feet.	inches.	
<b>LEICESTERSHIRE—(con.)</b>						
Old Humberstone .....	W. R. Kendall, Esq. ...	5	2 0	297 †	26.11	...
Withcote Hall .....	Miss Palmer .....	5	...	500	31.02	...
Leicester (Anstey Pastures).....	W. P. Viccars, Esq. ...	...	...	...	26.49	...
D Thornton Reservoir .....	Leicester WW Committee	8	1 2	371 †	28.47	193
D Thurmaston (Cropston, Bradgate Res.)	"	8	1 0	246 †	28.13	190
D Barkby Hall .....	Victor R. Pochin, Esq..	5	0 3	217 †	26.84	195
D Syston .....	S. K. Daniels, Esq. ...	5	1 6	180 †	23.30	163
D Swithland (The Brand) .....	Leicester WW Committee	8	1 0	172 †	25.89	176
D Rearsby Rectory .....	Rev. G. Hassall .....	8	1 2	202	26.02	184
Ratcliffe-on-Wreake College ...	Rev. J. Cremonini .....	5	1 0	300	22.17	...
D Ashby-de-la-Zouch (Coleorton Hall)	F. A. Smith, Esq. ....	5	2 0	540 †	29.53	189
D Barrow-upon-Soar (The Mount).	Mrs. C. Stuart Thomson	5	1 6	...	23.40	163
D Charnwood Forest (Blackbrook Res.)	A. H. Walker, Esq., C.E.	8	1 0	367	28.22	192
D Loughborough (Nan Pantan Res.)	"	8	1 0	269 †	26.61	189
" (The Widenings).	Adrian Young, Esq. ...	5	0 7	197 †	26.95	214
D " (Sewage Farm)...	A. H. Walker, Esq., C.E.	8	1 0	134 †	26.25	187
D Burton-on-the-Wolds .....	Lord Ernest St. Maur...	6	0 9	...	24.15	170
D Prestwold Hall .....	Hussey Packe, Esq. ...	8	1 0	209 †	24.84	207
D Waltham-on-the-Wolds .....	G. Higgins, Esq. ....	5	1 0	568	26.26	203
D Belvoir Castle.....	W. H. Divers, Esq. ...	8	1 0	260 †	25.83	227
<b>RUTLAND.</b>						
Liddington (Uppingham W.W.)	Messrs G. & F. W. Hodson	5	1 0	152 †	24.51	...
D Uppingham (Ridlington) .....	N. W. Wortley, Esq....	5	4 7	527 †	29.59	186
Tinwell (Glebe Farm) .....	H. Edwards, Esq. ....	5	1 1	...	25.86	176
D Whitwell Rectory .....	Rev. T. E. Woodhouse.	5	0 11	320	27.53	199
D Market Overton.....	Miss Grace Wingfield...	8	0 11	475 †	30.63	188
<b>SOUTH LINCOLNSHIRE.</b>						
(HOLLAND AND KESTIVEN.)						
D Market Deeping (Wilsthorpe) ...	J. C. Gill, Esq., C.E....	8	3 10	53 †	22.09	167
D Holywell Hall .....	Col. Birch Reynardson	...	...	190 †	26.30	189
D Bourne (Guthram).....	F. S. Robins, Esq., C.E.	8	1 6	19	19.66	177
D Grantham (Stainby Rectory) ...	Rev. W. L. de B. Thorold	5	0 9	496	26.29	163
D " (Little Ponton Rect.)	Rev. P. R. Worsley ...	5	1 0	250 †	29.04	217
D " (Denton Manor) .....	Sir C. G. E. Welby, Bt. CB	5	3 0	310	26.85	218
D " (Saltersford).....	H. Preston, Esq. ....	5	0 6	188 †	25.10	179
D " (Guildhall) .....	W. Shackleton, Esq. C.E.	5	13 6	202 †	25.45	172
D " (High Street) .....	Messrs. R. & W. Bird..	5	1 0	202	26.08	179
Holbeach Marsh (Somerset House)	W. H. West, Esq. ....	5	0 6	0 †	23.23	...
D Boston (Black Sluice, Skirbeck).	F. S. Robins, Esq., C.E.	8	1 3	11	22.87	188
D " .....	G. E. Clarke, Esq., C.E.	8	1 0	10 †	22.86	181
D " (Grand Sluice) .....	J. H. Johnson, Esq., C.E.	8	8 0	18 †	21.91	172
D " .....	W. H. Wheeler, Esq. C.E.	5	6 6	25 †	22.36	160
D §Sleaford (Rauceby Hall) .....	Gen. Sir M. Willson, KCB	5	1 0	125 †	26.90	197
D Leake (Lade Bank Engines).....	J. H. Johnson, Esq., C.E.	8	1 0	10 †	22.11	163
D Stubton [Newark].....	G. Neville, Esq. ....	5	4 6	99 †	22.39	192

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

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain.	Days with .01 or more recorded.	
		Diameter	Height Above Ground		Height Above Sea Level		1907
		in.	ft.	in.	feet.	inches.	
SOUTH LINCOLNSHIRE							
(HOLLAND AND KESTEVEN)— <i>con.</i>							
d § Fulbeck .....	Rev. V. F. Willson ...	5	0	8	180 N	24·20	205
d Welbourn .....	Miss M. Burttt .....	5	3	6	120 T	23·78	189
§ Temple Bruer.....	Miss A. S. Morley .....	5	1	0	300?	26·91	196
Navenby Rectory .....	Mr. J. Thompson .....	5	1	0	218 T	27·11	176
d Carlton-le-Moorland.....	J. Brocklebank, Esq....	5	1	2	49	24·45	168
Lincoln (Branston Hall) .....	A.S.Leslie Melville, Esq	5	1	3	122 N	25·70	183
d „ (Boultham) .....	NeilMcK.BarronEsq.CE	5	0	7	19 N	23·46	182
d „ (Doddington Rectory)...	Rev. R. E. G. Cole ...	5	1	2	92 N	23·62	173
„ (Skellingthorpe Hall) ...	A.H.B. Coupland, Esq.	5	1	0	...	25·25	162
NORTH LINCOLNSHIRE.							
(LINDSEY.)							
d Carrington Grange .....	Mr. T. J. Ward .....	5	6	0	15 N	24·04	157
Horncastle (Mareham-le-Fen) ...	A. R. Ellwood, Esq. ...	5	1	0	20	24·07	...
§ „							

\* Kept for the Canal Department of the Great Central Railway Company. Returns supplied by G. Taylor, Esq.

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

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain.	Days with $\geq 0.1$ or more recorded.
		Diameter	Height Above Ground.	Height Above Sea Level	1907	
		in.	ft. in.	feet.	inches.	
<b>NORTH LINCOLNSHIRE</b>						
(LINDSEY)— <i>con.</i>						
D Grimsby (Abbey Road).....	W. J. Wood, Esq. ....	5	3 0	23	21.71	162
" .....	Great Central Rly. Co..	9	15 0	42	19.42	...
Barnetby.....	" F. C. " " ..	9	3 6	51	23.57	150
D Brocklesby Park.....	Mr. F. C. Stainsby ...	5	2 0	108	26.43	192
D N. Level Engine [Thorne] .....	Mr. J. Turner.....	5	2 3	...	23.30	197
Crowle (Keadby) .....	Great Central Rly. Co.	9	...	17	21.40	...
D Burton on Stather Vicarage .....	Rev. F. A. Jarvis .....	5	0 6	212 T	27.58	199
D Thornton Curtis.....	Rev. C. B. Goodacre ...	8	1 4	66	24.64	178
D Horkstow .....	E. J. Turton, Esq.....	5	0 10	75 T	26.86	179
Ferriby Sluice .....	A. Atkinson, Esq., C.E.	5	1 0	18 T	25.06	200
New Holland .....	Great Central Rly. Co..	9	3 6	18	25.31	173
<b>NOTTINGHAMSHIRE.</b>						
D Kingston (Midland Agric. Inst.)..	F. Wakerley, Esq. ...	5	1 0	126 T	22.76	183
D " Hall .....	Mr. W. H. Cooke .....	5	0 9	130	26.97	198
D Plumtree (Normanton-on-Wolds)	T. A. Hill, Esq. ....	8	1 0	170 T	24.59	204
D Nottingham (Wilford Hill Res.)	F. W. Davies, Esq. ...	8	0 11	296 T	23.74	196
Cropwell Bishop (Cropwell Grove)	H. Smith, jun., Esq....	5	1 1	160 T	24.59	...
Bingham (Whatton Manor) .....	Capt. M. H. Hall .....	5	3 0	104 T	24.87	183
D Nottingham (Beeston Fields) ...	G. Fellows, Esq. ....	5	0 9	206 T	27.75	193
" (Trent Lane) ... (R)	A. Brown, Esq., C.E..	8	0 10	85 T	23.29	172
D " (The Castle) .....	" " " ..	8	1 2	192 T	25.65	184
" ( " " ) .....	" " " ..	8	76 0	268 T	23.15	169
D " (Waterloo Promenade)	F. W. Smallshaw, Esq.	5	1 0	240 T	25.48	190
" (Carisbrook Ho., The Park)	W. Bradshaw, Esq. ...	5	2 0	247 T	26.18	190
Radcliffe-on-Trent .....	T. Yates, Esq. ....	5	1 0	...	23.02	151
" " " (The Cliff Ho.)	Mrs. Hingston .....	5	0 7	150 T	22.77	...
D Nottingham (Stoke Bardolph) ...	A. A. Avis, Esq. ....	8	1 0	66 T	23.97	174
D§ " (Strelley) .....	T. L. K. Edge, Esq. ...	8	1 0	396 T	27.66	196
D§ " ( " Hall) .....	" " " ..	5	1 0	379 T	26.92	184
D§ " ( " " ) .....	" " " ..	5	1 0	378 T	26.83	184
§ " ( " " ) ... M	" " " ..	5	1 0	379 T	27.48	...
D " (Mapperley Hill) ...	E. Powell, Esq. ....	8	1 0	400 T	25.71	194
Bagthorpe (Isolation Hospital)...	P. Boobbyer, Esq., M.D.	8	1 0	189 T	27.82	219
D Nottingham (Basford W.W.) ...	F. W. Davies, Esq. ...	8	1 0	169 T	26.02	186
" (Woodthorpe) .....	Col. H. Mellish .....	...	...	...	27.90	...
D " (Burton Joyce W.W.)	F. W. Davies, Esq. ...	8	0 9	64 T	25.39	194
D Bulcote (Corporation Farm).....	A. A. Avis, Esq. ....	10	1 3	65 T	23.04	156
Lowdham (Chilwell Nurseries)...	Mr. J. D. Pearson .....	5	5 6	90	20.77	...
D Bulwell (Watnall Reservoir) ...	F. W. Davies, Esq.....	8	0 11	472 T	29.79	197
" (Springfield).....	G. W. Walker, Esq....	5	0 9	166 T	26.45	...
D " (Bestwood) .....	F. W. Davies, Esq. ...	8	1 2	317 T	26.94	192
D Daybrook (Ramsdale Hill Res.)	" " " ..	8	0 10	495 T	28.14	209
D Eastwood Colliery .....	J. W. Fryar, Esq.....	5	1 0	245 T	30.15	193
D Hucknall Torkard (Forge Mills)	J. D. Walker, Esq.....	5	4 3	200 ?	24.63	155
D Gonalston Rectory.....	Rev. F. H. Paley .....	5	1 0	84	25.96	200

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

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain. 1907	Days with $\geq 0.1$ or more recorded.
		Diameter	Height Above Ground.	Height Above Sea Level		
		in.	ft. in.	feet.	inches.	
NOTTINGHAMSHIRE—(con.)						
D Papplewick (Water Works) .....	F. W. Davies, Esq. ...	8	0 10	317 $\nabla$	26.90	198
Annesley (Selston W.W.) .....	Messrs G. & F. W. Hodson	5	1 0	475 $\nabla$	27.70	169
† Southwell (Westhorpe Hall) ...	General Warrand .....	5	1 0	147 $\nabla$	25.35	...
Newark Castle Gardens .....	P. Blagg, Esq. ....	5	0 8	63 $\nabla$	21.85	...
D† Farnsfield .....	Dr. C. Wills .....	5	1 0	210 $\nabla$	25.68	220
† Sutton-in-Ashfield W.W. ....	Messrs G. & F. W. Hodson	5	1 1	462 $\nabla$	28.42	178
† Mansfield (W.W. Rainworth) ...	" " " " .....	5	1 0	360 $\nabla$	27.85	168
D " (Berry Hill) .....	W. Hollins, Esq. ....	5	1 0	528 $\nabla$	32.20	197
D† " (West Bank) .....	W. Pickard, Esq. ....	8	1 0	405 $\nabla$	28.94	220
D North Collingham .....	E. Turton, Esq. ....	5	1 0	28 $\nabla$	23.01	194
Clipstone Waterworks .....	Messrs G. & F. W. Hodson	5	1 0	236 $\nabla$	24.23	...
D Ollerton (Boughton W.W.) .....	F. W. Davies, Esq. ...	8	0 7	141 $\nabla$	24.20	188
D " (Thoresby Gardens) ...	Mr. A. Simmons .....	8	0 9	125 $\nabla$	26.17	169
† Welbeck Gardens .....	Duke of Portland, K.G.	8	0 9	196 $\nabla$	26.36	...
Clumber Gardens .....	A. P. Elliott, Esq. ....	5	0 11	170	25.08	...
Workshop .....	Great Central Rly. Co.	9	3 6	127	24.49	189
D " (Osberton Gardens) ...	Mr. J. B. Allan .....	5	3 6	70	21.18?	190
Retford .....	Great Central Rly. Co.	9	3 6	52	22.64	181
D " (Grammar School) .....	G. R. Davies, Esq. ....	8	0 11	53 $\nabla$	24.68	191
D " (Morton Hall) .....	W. H. Mason, Esq. ...	5	1 0	140 $\nabla$	24.08	185
" (Babworth Hall) .....	Col. H. Denison .....	5	1 0	92 $\nabla$	26.47	...
D Workshop (Wigthorpe Hill) .....	R. C. Ramsden, Esq. ....	5	1 0	100	24.56	189
D† " (Hodsock Priory) .....	Col. H. Mellish .....	8	1 0	56 $\nabla$	23.66	197
† " { " " } ... M	" " " " .....	5	1 0	56 $\nabla$	22.95	...
† " { " " } ... (R)	" " " " .....	11	1 0	56 $\nabla$	23.23	183
The Gardens [Bawtry Hall] .....	Mr. J. H. Stride .....	5	1 3	31 $\nabla$	23.92	...
Stockwith .....	Great Central Rly. Co.	9	3 6	21	22.21	200
D§ Bawtry (Hesley Hall) .....	B. I. Whitaker, Esq. ....	8	0 11	61 $\nabla$	23.70	189
DERBYSHIRE.						
D Melbourne Vicarage .....	Rev. Canon Singleton ..	5	1 0	177 $\nabla$	26.88	188
" (The Hollow) .....	Mr. W. Garratt .....	5	1 0	182 $\nabla$	26.00	...
D Chellaston .....	H. Chambers, Esq. ....	5	1 0	170 $\nabla$	26.36	194
Willington (W.W. Milton) .....	Messrs G. & F. W. Hodson	5	1 0	134 $\nabla$	25.66	...
Findern (The Longlands) .....	Rev. B. W. Spilsbury ..	5	0 9	186 $\nabla$	26.66	171
" (Mill Hill Farm) .....	G. L. Spilsbury, Esq. ...	5	1 6	243	27.13	170
D Etwall (Blakeley Lodge) .....	Mr. R. Giles .....	5	1 0	190 $\nabla$	26.95	160
Mickleover (County Asylum) ...	R. Legge, Esq., M.D. ...	5	3 0	300 $\nabla$	27.48	161
D " Manor .....	Mr. J. Campbell .....	5	2 0	280	29.51	182
D Derby (Wild Street) .....	Messrs. J. Davis & Son	5	1 0	174	31.04	196
D† " (Midland Railway) .....	J. Sayers, Esq. ....	5	1 5	156 $\nabla$	28.38	213
D§ " (Royal Infirmary) .....	E. Forster, Esq. ....	5	1 0	195	28.47	225
D " (Arboretum) .....	J. Ward, Esq., C.E. ...	8	1 0	196 $\nabla$	31.20	203
D " (Duffield Road) .....	Dr. W. G. Copestake ...	5	8 0	184 $\nabla$	28.56	196
Kirk Langley .....	W. Goodall-Copestake, Esq.	8	1 3	346 $\nabla$	31.77	...
" (Langley Hall) ...	G. W. Peach, Esq. ...	5	1 10	396 $\nabla$	33.48	206
D Breadsall Lodge .....	Col. W. B. Woodforde.	5	1 3	280 $\nabla$	28.38	211

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

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain.	Days with $\geq 0.1$ or more recorded.	
		Diameter	Height Above Ground.		Height Above SeaLevel		1907
			ft.	in.	feet.		
DERBYSHIRE—(con.)							
D Breadsall Priory .....	Miss H. A. Haslam ...	5	1	6	380 $\pi$	31.06	210
D Duffield (Castle Hill House).....	Messrs. J. Davis & Son ...	...	...	...	...	30.53	207
D „ (Kirkstyles).....	WB Worthington Esq. CE	5	1	0	235 $\pi$	29.59	194
Hazelwood (Chevin) .....	Sir J. G. N. Alleyne, Bart.	5	4	0	503 $\pi$	31.48	224
D Ashbourne Water Works.....	Mr. J. W. Twigg .....	5	1	0	582 $\pi$	37.56	224
„ (Yeldersley Hall) ...	E. B. F. Wright, Esq..	5	1	0	635 $\uparrow$	33.64	205
D § Belper (Quarry Bank) .....	J. Hunter, Esq., C.E....	5	0	8	281 $\pi$	30.71	188
D „ (Highfield) .....	M. Hunter, Esq., C.E..	8	0	8	310 $\pi$	31.27	189
D Codnor (Cross Hill) .....	A. F. Pine, Esq.....	5	1	0	372 $\pi$	28.01	181
D Wirksworth (Bridge House) ...	Thomas Gibbs, Esq. ...	5	1	0	500 $\uparrow$	36.31	205
D Alderwasley .....	F. C. A. Hurt, Esq. ...	5	1	0	550 $\pi$	35.00	185
Matlock Bath .....	Miss E. Chadwick .....	5	1	6	500	34.96	...
D „ (The Gables) .....	Mrs. R. Wildgoose.....	5	1	0	459 $\uparrow$	35.97	224
„ (Rockside).....	Roy. Meteorological Soc.	...	...	...	637	34.07	213
Darley Dale (Whitworth Inst.)..	Whitworth Inst. Trustees	5	1	8	361 $\pi$	33.91	...
D „ Hall .....	A. Clay, Esq.....	5	1	0	400 $\uparrow$	34.19	214
D Stretton (Lindway Res.) .....	Mr. J. Rimmington ...	5	3	6	447 $\pi$	23.76	170
Hardwick Hall .....	Mr. E. Wilson .....	8	2	6	594 $\uparrow$	32.41	189
D Grassmoor Colliery .....	Mr. J. Norman .....	5	19	10	370 $\pi$	20.22	155
D Bakewell (Catcliff).....	Dr. T. Fentem .....	12	1	6	411 $\uparrow$	41.68	211
D Chatsworth Gardens .....	Mr. F. Jennings.....	8	5	5	436 $\uparrow$	36.78	230
Chesterfield (Gas Works) .....	Chesterfield Corporation	5	1	0	279	26.71	173
„ .....	Great Central Rly. Co..	9	3	6	250	25.56	156
D „ (Sewage Works) ...	Mr. W. Tomlinson.....	5	2	0	...	24.29	159
D „ (Linacre Reservoir). ..	Chesterfield Corporation	8	1	0	490	32.07	198
„ (Tapton Grove).....	Mr. W. R. Bloxham ...	5	4	3	400	24.69	...
D § Buxton (Devonshire Hospital)...	F. T. Kieldsen, Esq. ...	5	1	0	988 $\pi$	46.58	247
D „ (Portobello Bar) .....	W. H. Grieves, Esq. C.E.	8	1	0	1600 $\pi$	59.09	270
D „ (Stanley Moor) .....	„ „ „	8	1	0	1340 $\pi$	56.48	268
D „ (Burbage Edge) .....	„ „ „	8	1	0	1400 $\pi$	55.61	270
D Eyam (The Rectory) .....	Rev. F. L. Shaw .....	5	1	0	856 $\uparrow$	41.57	222
D „ (Eyam View) .....	Mr. P. Thorpe.....	5	1	0	945	42.37	222
Comb's Moss .....	Great Central Rly. Co..	9	3	6	1669 $\uparrow$	34.24	...
„ Reservoir .....	„ „ „	9	3	6	710 $\uparrow$	38.09	253
Chapel-en-le-Frith .....	„ „ „	9	3	6	965 $\uparrow$	37.71	227
D Totley Hall.....	W. A. Milner, Esq. ...	5	1	0	700	38.69	192
Killamarsh (Norwood) .....	Great Central Rly. Co..	9	3	6	226 $\uparrow$	25.20	208
Grindleford (Grouse Inn) No. 58	E. Sandeman, Esq., C.E.	5	1	0	990	37.77	198
Hathersage .....	No. 57 „ „ „	5	1	0	525	36.03	210
D Bamford .....	No. 60 „ „ „	8	0	10	508 $\pi$	39.67	248
„ .....	No. 36 „ „ „	8	1	0	680	37.59	208
Castleton .....	No. 55 „ „ „	5	1	0	625	45.48	209
Hope School.....	No. 56 „ „ „	5	1	0	545	42.90	246
Edale (Dale Head) .....	No. 54 „ „ „	5	1	0	1015	50.69	225
„ (Upper Booth) ...	No. 53 „ „ „	5	1	0	910	47.54	216
Bamford (Yorkshire Bridge Weir) No. 59	„ „ „	5	1	0	540	41.50	232
Ashopton (Win Hill) .....	No. 34 „ „ „	5	1	0	1240	41.15	...



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

STATIONS.	AUTHORITIES.	Rain Gauge.				Depth of Rain.	Days with '01 or more recorded.
		Diameter	Height Above Ground		Height Above Sea Level	1907	
			in.	ft.	in.	feet.	
DERBYSHIRE—(con.)							
Ashopton(CockbridgeFarm)No33	E. Sandeman, Esq., C.E.	5	1	0	620	43·80	219
„ (Wooler Knoll) No. 52	„ „ „	5	1	0	1080	42·28	...
„ Inn.....No. 32	„ „ „	8	1	0	610	42·77	226
„ Grimbo Carr...No. 51	„ „ „	5	1	0	1100	36·24	...
Hayfield (The Dympus) .....	H. Sowerby Wallis Esq. }	5	1	3	1450 T	43·48	...
„ (Edale Cross) .....	& E. M. Eaton, Esq., CE }	5	1	3	1760 T	41·20	...
„ (Oaken Clough) .....	„ „ „	5	1	3	1300 T	39·28	...
„ (Tunstead Clough).....	„ „ „	5	1	3	960 T	36·45	...
„ (Broad Clough) .....	„ „ „	5	1	3	1420 T	44·14	..
„ (Cluthers Rocks).....	„ „ „	5	1	3	1730 T	49·33	...
„ (Upper House) .....	„ „ „	5	1	3	1170 T	40·74	...
„ (Kinder Top) .....	„ „ „	5	1	3	2020 T	53·36	...
„ (Park Hall Moor) .....	„ „ „	5	1	3	1260 T	38·82	...
„ (Sandy Heys).....	„ „ „	5	1	3	1500 T	45·97	...
„ (Leygatehead Moor) ...	„ „ „	5	1	3	1550 T	43·24	...
„ (Mill Hill) .....	„ „ „	5	1	3	1730 T	47·34	...
Ashopton(Cutthroat Brdg.)No.31	E. Sandeman, Esq., C.E.	8	1	0	994	45·07	...
„ (Moscar Flat) ...No. 30	„ „ „	8	1	0	1154	42·14	...
Derwent Bridge End .....No. 28	„ „ „	5	1	0	624	46·84	247
„ Dam.....No. 26	„ „ „	5	1	0	790	44·63	243
Ashopton (Haglee).....No. 50	„ „ „	8	1	0	783	39·53	236
Blackdean Moor (Crookstone) 49	„ „ „	5	1	0	1460	52·20	...
Derwent(Lockerbrook Fm.)No27a	„ „ „	5	1	0	1120	49·99	238
Woodland Dale(Woodlands, S.)48	„ „ „	5	1	0	1044	48·49	219
„ „ „ (N.)47	„ „ „	8	1	0	1063	50·60	219
The Peak (Fairbrook).....No. 46	„ „ „	5	1	0	1009	63·96	238
„ (Nungrain).....No. 45	„ „ „	5	1	0	1320	62·18	...
Hayfield (Ashop Head) ...No. 43	„ „ „	5	1	0	1650	47·10	...
Woodland Dale (Rowlee) No. 24	„ „ „	5	1	0	1540	47·87	...
Derwent Dale (Walker Ho.)No.22	„ „ „	8	1	0	758	49·08	249
Alport Dale (Alport Castles) No.42	„ „ „	5	1	0	955	57·10	204
Featherbed Moss (Redgate Clough)44	„ „ „	5	1	0	1730	50·60	...
Derwent Dale (Birchinlee) No. 23	„ „ „	5	1	0	870	52·84	247
Birchinlee Moor (Cote Ridge) No.18	„ „ „	5	1	0	1440	47·47	...
Lady Clough Moor .....No. 41	„ „ „	5	1	0	1720	49·20	...
Coldharbour Moor (Summit) No.39	„ „ „	8	1	0	1670	49·84	...
Derwent Dale (Howden Dam) 17	„ „ „	8	1	0	829	50·07	229
„ „ (Banktop Hey) 16	„ „ „	8	1	0	1340	55·37	...
„ „ (Ridge Farm)...13	„ „ „	5	1	0	1175	44·84	246
Alport Moor (Glethering Clough)..40	„ „ „	5	1	0	1640	51·40	...
Westend Moor (Blacklow Cote)15	„ „ „	5	1	0	970	51·93	...
„ „ .....No. 10	„ „ „	5	1	0	1560	48·80	...
Alport Moor.....No. 38	„ „ „	5	1	0	1790	49·60	...
Derwent Dale (Black Dyke) No.12	„ „ „	5	1	0	1546	53·77	..
„ „ (Cranberry Clough) 6	„ „ „	8	1	0	960	54·81	...
„ „ (Mosley Bank) No. 5	„ „ „	8	1	0	1350	55·90	...
Ridgewalk Moor .....No. 9	„ „ „	5	1	0	1650	51·00	...
Bleaklow Stones .....No. 8	„ „ „	5	1	0	2060	64·00	...

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

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain.	Days with '01 or more recorded.	
		Diameter	Height Above Ground		Height Above Sea Level		1907
			ft.	in.	feet.		inches.
DERBYSHIRE—(con.)		in.	ft.	in.	feet.	inches.	
Derwent Dale (Roundhill) No. 4	E. Sandeman, Esq., C.E.	5	1	0	1675	54.40	...
d Glossop (W.W., Swineshaw) ...	Mr. J. Garner .....	12	4	0	733 7	42.54	231
Woodhead Station.....	Great Central Rly. Co..	9	3	6	878 7	53.94	240

## DIVISION VIII.—NORTH WESTERN COUNTIES.

CHESHIRE.

D	Baddiley (Nantwich W. W.) ...	Baldwin Latham Esq CE	5	1	0	231	28-36	206
D	Nantwich (Dorfold Hall) .....	J. A. Saner, Esq., C.E.	8	1	0	190	28-55	215
D	" (Reaseheath Hall) ...	" " "	8	1	0	130	30-99	205
D	Eaton Hall Gardens .....	Mr. N. F. Barnes	6	3	0	72	26-82	194
D	Sandbach (Malkins Bank) .....	Mssrs Brunner Mond & Co	5	3	8	244	24-89	196
	Eccleston .....	E. Wells, Esq.	5	1	1	94	26-24	194
D	Tarporley (Summer Hill) .....	Col. J. H. Hamersley...	5	1	0	370	27-73	181
D	Congleton (Sewage Works) .....	Randle Burslam Esq. CE	5	1	0	248	28-08	194
	Bosley Reservoir .....	Great Central Rly. Co..	9	3	6	590	31-57	213
	" Minns .....	" " "	9	3	6	1210	29-98	224
	Macclesfield (Wincle) .....	H. Curbishley, Esq. ...	5	3	0	500	41-11	171
D	Tarporley (Willington Hall).....	J. Tomkinson, Esq., M.P.	5	1	0	220	30-34	218
D	Chester (Sewerage Works) .....	Rev. J. Cairns Mitchell	5	1	0	20	25-16	185
\$	" (Hawarden Bridge).....	Meteorological Office...	8	1	0	20	23-52	212
D	" (Christleton Hall) .....	Mr. J. Weaver .....	5	1	2	142	26-86	217
	" (Water Works) .....	A. Bell, Esq. ....	5	0	10	85	25-57	232
	" (Northgate Station).....	Great Central Rly. Co..	9	3	6	84	26-22	169
D	Middlewich .....	Mssrs Brunner Mond & Co	5	3	10	138	25-72	196
	" (Bostock Hall) .....	Col. France Hayhurst..	5	2	6	157	29-26	...
D \$	Macclesfield (The Park) .....	Mr. J. Dale .....	5	1	0	501	34-80	206
	" .....	Great Central Rly. Co..	9	3	6	539	34-80	178
D	Chelford (Astle Hall) .....	G. Dixon, Esq. ....	5	1	0	250	31-20	176
	" " " ) ..... M	" " " .....	8	1	0	250	30-37	...
	Northwich .....	Great Central Rly. Co.	9	3	6	76	24-52	...
D \$	" (Highfield) Snowdon	J. A. Saner. Esq., C.E..	8	1	0	116	30-68	222
D	" (Winnington).....	Mssrs Brunner Mond & Co	5	3	8	80	30-24	229
D	" (Lostock Gralam) ...	" " "	5	3	6	75	27-82	213
D	Macclesfield (Swanscoe Park) ...	T. C. Horsfall, Esq. ...	5	1	0	676	35-57	246
D	Neston (Hinderton) ..	Miss L. H. Bushell ...	5	1	0	215	24-49	196
	" " " ) ..... M	" " " .....	8	1	0	215	24-64	...
	" " Lodge) .....	" " " .....	5	1	0	145	24-63	186
	Bollington (Sponds Hill) .....	Great Central Rly. Co..	9	3	6	1279	28-48	...
D	Hooton Grange .....	late W. H. Jones, Esq.	5	1	0	110	27-57	190
D	Eastham House .....	J. H. Vernon, Esq. ...	5	1	0	100	27-89	198
D	Wilmslow (Parkside) .....	E. Pearson, Esq. ....	8	1	0	253	29-76	217
	Whaley Bridge .....	Great Central Rly. Co..	9	3	6	602	42-42	227
D	Handforth .....	A. Brothers, Esq. ....	5	1	6	260	31-81	174
D	Disley (Lyme Park)..... No. 1	T. Molyneux, Esq.....	9	3	8	720	40-33	215
D	" ( " " )..... No. 2	" " " .....	12	2	9	674	35-06	215

## DIVISION VIII.—NORTH WESTERN COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain.	Days with '01 or more recorded.
		Diameter	Height Above Ground	Height Above Sea Level	1907	
		in.	ft. in.	feet.	inches.	
<b>CESHIRE—(con.)</b>						
d Runcorn (Weston Point) .....	J. A. Saner, Esq., C.E.	8	1 4	18	30·35	208
Thurstaston (Dawpool) .....	Mr. R. Horne.....	...	...	...	22·90	...
Wirral W.W. (Prenton) .....	P. H. Bettle, Esq. ....	5	1 0	81 T	28·94	...
d West Kirby (Greenfield) .....	H. Bell, Esq. ....	5	1 0	75 T	25·31	209
Altrincham (Norman's Place)....	A. Griffiths, Esq. ....	5	8 0	150 T	33·55	...
" (Barrington House).	C. E. Newton, Esq., C.E.	8	2 6	103	31·76	...
d Hoyle Lake (District Council Office)	T. Robinson, Esq. ....	5	1 0	33 T	26·34	208
§ Birkenhead (Bidston Observatory)	W. E. Plummer, Esq..	8	1 0	189 T	26·57	209
Cheadle (Adswold) .....	R. W. Wright, Esq. ...	5	...	180	32·79	...
d Northenden (Wythenshawe)....	T. E. Tatton, Esq. ...	5	1 0	114 T	30·28	206
" " " " )... M	" " " "	8	1 0	114 T	29·33	...
Marple Top Lock .....	Great Central Rly. Co..	9	3 6	523 T	31·12	196
" Aqueduct .....	" " " "	9	3 6	321 T	32·89	217
d New Brighton (Rutland House)..	W. Bell, Esq. ....	5	0 11	130 B	28·40	196
Godley Reservoir .....	G. H. Hill, Esq., C.E..	12	2 0	500	32·00	...
Newton .....	Great Central Rly. Co..	9	3 6	396 T	29·92	190
Mottram Station .....	" " " "	9	3 6	452 T	32·12	194
d Broadbottom (Harewood Lodge).	Col. Sidebottom .....	5	1 0	440	33·76	199
d Hadfield (Millbrook House)....	Mr. S. H. Doxon .....	8	3 10	442 T	39·18	222
" " " " )....	" " " "	12	4 0	442 T	39·91	222
Arnfield Reservoir.....	G. H. Hill, Esq., C.E..	12	2 6	550	40·12	...
Rhodes Wood Reservoir .....	" " " "	12	1 0	520	42·74	...
Torrside Reservoir.....	" " " "	12	1 6	680	46·73	...
Staleybridge (Swineshaw).....	" " " "	8	3 0	884 T	53·20	...
Woodhead Reservoir.....	" " " "	12	0 10	660	49·28	...
<b>SOUTH LANCASHIRE.</b>						
d Garston (Grassendale Park).....	Miss E. C. Abraham ...	5	1 0	35 T	26·87	190
d Aigburth (Kelton).....	Iate Joshua Sing, Esq..	5	1 0	150 T	30·92	223
d " (Holmfield) .....	Miss Maxwell.....	5	1 0	100 T	31·00	222
d Woolton (Camp Hill Gardens)...	Mr. J. Stoney .....	5	1 0	189	32·27	213
d Warrington (Howley) .....	T. Longdin, Esq. ....	10	0 10	19 T	28·89	200
" (Central Station) ...	Great Central Rly. Co..	9	3 6	59 T	25·06	144
Liverpool (Monument Place) ...	J. A. Brodie, Esq., C.E.	5	1 3	126 T	28·41	193
d " " " " )...(B)	" " " "	10	4 6	129 T	28·26	193
" (Smithdown Road) ...	" " " "	10	0 9	135 T	29·50	199
" (Rathbone Road) .....	" " " "	10	1 0	199 T	30·86	192
d " (Huyton Vicarage) ...	Mrs. E. M. Sanderson..	5	0 11	116 T	35·64	228
" (Knotty Ash) .....	W. M. Reade, Esq. ...	5	1 0	100	32·47	221
" (Newsham Park) .....	J. A. Brodie, Esq., C.E.	10	1 0	140 T	30·47	200
" (Breeze Lane) .....	" " " "	5	0 9	135 T	32·61	214
" (Huskisson Station) ...	Great Central Rly. Co.	9	3 6	40 T	29·51	187
d Heaton Mersey [Stockport] .....	W. B. Leigh, Esq.....	5	3 11	218 T	29·73	212
d Heaton Moor [ " ] .....	F. W. Jordan, Esq., M.D.	5	1 0	235	32·47	186
d West Derby (Grove House) .....	G. W. Lloyd, Esq. ...	5	1 0	82 T	35·37	242
d " " (Croxteth Hall) ...	Mr. J. Gibbins .....	5	1 0	79 T	33·96	193
d Withington (Palatine Road) ...	L. G. King, Esq. ....	8	1 6	110 T	30·58	219

DIVISION VIII.—NORTH WESTERN COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.				Depth of Rain.	Days with "or more recorded.
		Diameter	Height Above Ground.		Height Above Sea Level	1907	
		in.	ft.	in.	feet.	inches.	
<b>SOUTH LANCASHIRE—(con.)</b>							
D Urmston Sewage Works .....	Mr. A. B. Ogden .....	8	2	3	72 $\nabla$	30·66	198
D Withington Chorlton-c-HardySew.Wks.	G. F. Walter, Esq. ...	8	4	0	76 $\nabla$	31·18	239
D " (" " " " ) .....	J. H. Casartelli, Esq....	5	2	0	180	31·17	204
" (LadyBarn,Fallowfield)	Mr. H. F. Saunders ...	5	1	0	122 $\dagger$	31·94	213
D St. Helen's (Eccleston Hill).....	J.J. Lackland, Esq., C.E.	12	2	9	268 $\dagger$	32·85	196
D Earlestown (Newton Cemetery)..	T. Ormand, Esq. ....	5	1	0	75 $\nabla$	34·70	161
Denton Reservoir .....	G. H. Hill, Esq., C.E..	12	2	0	324 $\dagger$	31·53	...
Gorton " .....	" " " " " " " "	12	2	0	263 $\dagger$	31·87	...
Manchester (Piccadilly) .....	Great Central Rly. Co..	9	40	0	194 $\dagger$	30·07	192
" (Fairfield) .....	" " " " " " " "	9	6	0	312 $\dagger$	32·61	214
D " (Sackville Street) (R)	G. F. Walter, Esq. ...	8	3	2	118 $\nabla$	28·11	200
D† " (Oldham Road) .....	Dr. J. Niven .....	5	1	0	191 $\nabla$	33·89	215
† " (Whitworth Park)...	Meteorological Office...	8	1	5	126	30·98	230
D Eccles (Worsley New Hall) .....	Mr. W. B. Upjohn ...	8	8	0	100 $\dagger$	31·71	179
Blundellsands (Park Corner) ....	T. M. Reade, Esq. C.E.	5	1	0	33 $\nabla$	27·91	211
D Ashton-under-Lyne (Hartshead)	Mr. J. Travis.....	8	1	3	600 $\nabla$	40·40	193
" " " (Waterhouses)	Great Central Rly. Co..	9	3	6	345 $\dagger$	34·73	208
§ Prestwich Asylum.....	Meteorological Office ...	8	1	0	320	40·41	223
" Reservoir .....	G. H. Hill, Esq., C.E..	12	2	0	356 $\dagger$	34·76	...
Oldham (Gas Works) .....	" " " " " " " "	5	4	0	600 $\dagger$	42·33	...
† " (Alexandra Park) .....	Dr. J. B. Wilkinson ...	8	1	0	600	46·55	223
" (Honeywell Lane) .....	Great Central Rly. Co..	8	...	...	553	39·76	229
" (Brushes Clough) old g.	C. J. Batley, Esq., C.E.	5	4	0	930 $\nabla$	48·82	226
" " " " new g.	" " " " " " " "	5	5	0	955 $\nabla$	50·09	226
D Ormskirk (Aughton Springs) ...	C. E. Maples, Esq. ...	5	1	0	138 $\nabla$	30·99	228
D† Downholland (Barton Moss).....	J. Baxendell, Esq.....	5	0	9	14 $\dagger$	30·16	203
D† Bolton (Queen's Park) .....	T. Midgley, Esq. ....	5	1	0	390 $\dagger$	45·56	236
D† " (Heaton Reservoir) .....	RHSwindlehurstEsqCE	6	1	3	520	46·46	255
D " (Bloomfield, Heaton) ...	Mrs. F. Taylor .....	5	1	0	530 $\dagger$	44·41	233
D† " (Smithills Hall) .....	Col. R. H. Ainsworth...	8	1	2	510 $\dagger$	48·76	222
" " Moor) .....	" " " " " " " "	8	1	2	1375	53·93	...
D Bury (Parsons Lane).....	R. B. Rigby, Esq. ....	8	9	8	316 $\dagger$	42·99	216
† Milnrow (Piethorne, Kiteliffe)...	C. J. Batley, Esq., C.E.	5	4	6	769 $\nabla$	48·04	228
D† " (" " Coldgreave)	" " " " " " " "	5	4	6	894 $\nabla$	44·29	221
† " (" " Norman Hill)	" " " " " " " "	5	4	6	1076 $\nabla$	41·38	220
† " (" " Rooden Res.)	" " " " " " " "	5	4	6	1131 $\nabla$	40·56	221
D Rochdale (Deeplish Hill) .....	J. H. Lancashire, Esq.	5	1	0	475 $\dagger$	44·59	225
D† " (Park Observatory) ...	Dr. J. Henry .....	8	0	6	472	47·19	236
D " (Fieldhead) .....	S. S. Platt, Esq., C.E..	8	12	0	484 $\nabla$	43·04	202
D " (" " ) .....(R)	" " " " " " " "	...	12	0	484 $\nabla$	43·46	202
D " (The Crescent) .....	T. H. Hayle, Esq., M.B.	5	40	5	513 $\dagger$	43·15	227
D† " (Ashworth Moor) .....	J. Diggle, Esq., C.E... J. Cartwright, Esq. ...	5 8	1 1	2 0	957 $\nabla$ 475	48·26 47·14	235 225
Bury (Gin Hall) .....	No. 1 No. 2	8	1	0	475	47·32	225
† Bolton (Belmont, Longworth) ...	RHSwindlehurstEsqCE	5	1	0	769	53·99	224
D† " (" " ) .....	" " " " " " " "	5	0	9	800	58·22	228
† " (" " Hordern)... M	" " " " " " " "	5	1	0	1147	56·30	...
† " (" " Slater Lane)...	" " " " " " " "	5	1	0	981	55·96	222

## DIVISION VIII.—NORTH WESTERN COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.				Depth of Rain.	Days with .01 or more recorded.
		Diameter	Height Above Ground		Height Above Sea Level	1907	
		in.	ft.	in.	feet.	inches.	
SOUTH LANCASHIRE—(con.)							
n Rochdale (Nayden Dean Filters).	J. Diggle, Esq., C.E....	5	1	8	761 $\pi$	47.94	209
„ { „ „ } <i>old g.</i>	„ „ „ .....	5	1	7	948 $\pi$	41.61	...
„ { „ „ } <i>new g.</i>	„ „ „ .....	5	1	4	948 $\pi$	44.89	...
† Ramsbottom (Killgate Brook) M	„ „ „ .....	5	1	0	978 $\pi$	49.24	...
† „ (Cheesden Barn) M	„ „ „ .....	5	1	0	997 $\pi$	47.83	...
† „ (Shuttleworth Moss) M	„ „ „ .....	5	0	11	1076 $\pi$	50.15	...
„ (Higher Hill) ... M	„ „ „ .....	5	1	0	...	46.65	...
n Rochdale (Spring Mill Whitworth)	W. Tomlinson, Esq. ...	8	1	7	720	54.70	225
n „ (Cowm, „ „)	„ „ „ .....	8	1	7	760	53.58	209
n† Entwistle .....	RHSwindlehurst Esq CE	5	1	0	700	53.26	234
† „ (Old Lyons) .....	M „ „ „ .....	5	1	0	1260	52.34	...
† „ (Wayoh) .....	M „ „ „ .....	5	1	0	613	55.29	256
† „ (Broadhead) .....	„ „ „ .....	5	1	0	886	53.61	258
Littleborough (Hollingworth Lake)	Rochdale Canal Co.*	8	1	5	600	43.74	...
„ (Windy Bank) ...	„ „ „ .....	8	2	0	605 $\pi$	41.68	...
† „ (Blackstone Edge).	„ „ „ .....	8	2	0	1225 $\pi$	34.49?	...
„ (Canal Summit) ...	„ „ „ .....	8	2	0	700	38.61	...
„ (Chelburn) .....	„ „ „ .....	8	2	0	800	42.79	...
„ (Byron Edge) .....	„ „ „ .....	8	1	5	1250 $\uparrow$	45.06	...
„ (Lenches) .....	„ „ „ .....	8	2	0	806	45.34	...
Walsden (Calf Lee) .....	„ „ „ .....	10	1	6	960	43.50	...
„ (Warland) .....	„ „ „ .....	8	1	5	1250 $\uparrow$	40.17	...
„ (Whiteholme Drain) ...	„ „ „ .....	8	1	5	1250 $\uparrow$	42.49	...
„ (Rishworth Drain) .....	„ „ „ .....	8	1	5	1300 $\uparrow$	41.92	...
Todmorden W W. (Ramsden Moor)	W. Tomlinson, Esq. ...	5	1	0	1326 $\pi$	39.73	...
„ „ ( „ „ Res.)	„ „ „ .....	8	1	0	980 $\pi$	51.25	198
n Bacup (Britannia) .....	Miss M. A. Smith .....	5	1	0	1107 $\uparrow$	52.38	248
† Haslingden (Holden Wood) .....	J. Cartwright, Esq. ...	8	1	0	670 $\pi$	51.89	217
† „ (Calf Hey) .....	„ „ „ .....	8	1	0	800 $\pi$	49.92	217
„ (Springfield Lodge) ..	John Stott, Esq. ....	5	1	0	800 $\uparrow$	52.27	231
Rawtenstall Cemetery .....	J. Johnson, Esq., C.E..	8	1	0	572	49.63	209
n† „ (Cloughbottom Res.)	J. Cartwright, Esq. ...	8	1	0	1025	48.88	214
† „ (Hapton Reservoir) ..	„ „ „ .....	8	1	0	930 $\pi$	43.95	237
CENTRAL LANCASHIRE.							
n Wigan Waterworks .....	W. Bolton, Esq. ....	8	1	6	225 $\pi$	36.20	238
n „ (The Mariebonne) .....	H Nowell ffarrington Esq	5	1	0	150 $\uparrow$	37.45	217
Horwich (Wallsuches) .....	C. E. Barr, Esq. ....	5	1	0	655 $\uparrow$	39.84	...
n† „ (Lower Rivington) ...	J. Parry, Esq., C.E....	5	1	0	440 $\pi$	41.14	226
† „ (Lower Knoll) .....	„ „ „ .....	8	1	4	742 $\pi$	42.69	...
„ (Wildersmoor) .....	Col. R. H. Ainsworth...	8	1	2	1220	54.20	...
† Rivington (Brown Hill) .....	J. Parry, Esq., C.E. ...	8	1	4	843 $\pi$	38.51	...
n† „ (Stoneshouse) ... No. 1	„ „ „ .....	8	1	4	623 $\pi$	41.28	232
† „ ( „ ) ... No. 2	„ „ „ .....	10	1	4	623 $\pi$	41.68	...
† „ (Hurst Hill) .....	„ „ „ .....	8	1	10	1029 $\pi$	43.56	...
† „ (Great Hill) .....	„ „ „ .....	8	1	8	1240 $\pi$	52.87	...
† „ (Coppice Stile) .....	„ „ „ .....	8	1	8	879 $\pi$	42.39	...
† „ (Gamekeeper's) .....	„ „ „ .....	8	0	8	850 $\pi$	47.00	...

\* Returns supplied by C. R. Dykes, Esq.

DIVISION VIII.—NORTH WESTERN COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain. 1907	Days with .01 or more recorded.
		Diameter	Height Above Ground.	Height Above Sea Level		
		in.	ft. in.	feet.	inches.	
CENTRAL LANCASHIRE—(con.)						
†Rivington (Higher Hill) .....	J. Parry, Esq., C.E. ..	8	1 4	733	35·61	...
Southport (Birkdale).....	J. Baxendell, Esq.....	5	1 0	27	32·16	...
D† „ (Hesketh Park) .....	„ „ „ ..	5	1 0	38	32·53	203
D† „ { „ „ } M.O.g. ..	„ „ „ ..	8	1 0	38	32·63	206
D† „ { „ „ } (R) ..	„ „ „ ..	11	1 5	39	32·69	204
† „ (Lord Street Station) ..	Great Central Rly. Co..	9	3 6	21	29·23	184
Haslingden (Mitchells House Res.)	C. Harrison, Esq. ....	5	1 6	990	45·92	199
D Over Darwen (Sunnyhurst Hey.)	R. W. S. Saville, Esq..	8	1 8	915	49·06	236
D „ „ (Earnsdale Res.)....	„ „ „ ..	8	1 8	705	49·28	236
D „ „ (Sewage Works) ...	„ „ „ ..	5	1 6	475	45·28	231
„ „ (Hoddlesden) No.1	W. Stubbs, Esq., C.E..	8	4 0	680	48·88	233
„ „ ( „ ) No.2	„ „ „ ..	8	1 0	675	48·90	233
† „ „ (Daisy Green) No.1	„ „ „ ..	8	1 0	969	45·93	233
„ „ ( „ ) No.2	„ „ „ ..	8	1 0	969	45·68	233
„ „ (Pickup Bank) No.1	„ „ „ ..	8	1 0	720	45·63	233
„ „ ( „ ) No.2	„ „ „ ..	8	1 0	720	45·85	233
D Preston (Brindle Rectory) .....	Rev. J. Kinton Jacques	5	1 8	380	44·15	184
D „ (Walton-le-Dale W.W.)	T. W. Elliott, Esq. ...	5	0 10	316	41·09	226
† Blackburn (Guide Reservoir) ...	W. Stubbs, Esq., C.E..	8	1 0	650	39·40	220
† „ (Witton) .....	„ „ „ ..	8	2 6	315	44·44	206
„ (Store Yard) .....	„ „ „ ..	8	30 0	373	32·92	187
„ (Water Works Office)	„ „ „ ..	8	60 0	436	29·99	201
† „ (Corporation Park) ...	„ „ „ ..	8	0 6	584	42·39	224
† „ (Pumping Station) ...	„ „ „ ..	8	6 0	600	41·13	193
D Accrington (St. James's Vicarage)	Rev. A. Spencer.....	8	1 6	475	46·91	201
„ (Milnshaw Park).....	Accrington Corporation	5	1 6	464	39·57	179
D Preston (Corporation Offices) ...	T. Cookson, Esq. ....	8	18 7	148	41·15	205
Blackburn (Samlesbury Sew Wks)	W. Stubbs, Esq., C.E.	8	...	240	39·80	220
† Causeway Side (Burnley W.W.)	W. Williamson, Esq.	8	2 0	1116	38·92	...
† Sheddin ( „ „ )	„ „ „ ..	8	2 0	960	39·41	...
† Cant Clough, S. Side ( „ „ )	„ „ „ ..	8	2 0	900	39·49	218
† „ „ N. Side ( „ „ )	„ „ „ ..	8	2 0	900	36·85	218
Rams Clough Head ( „ „ )	„ „ „ ..	8	2 0	1260	38·90	...
Rishton Reservoir .....	Leeds & L'pool Canal Co. ....	...	...	467	26·35	...
Huncoat (Burnley Road Res.) ...	C. Harrison, Esq. ....	9	1 6	620	41·74	219
Burnley (Yorkshire Street) .....	W. Williamson, Esq...	8	30 0	420	35·71	208
† „ (Swinden, Upper) .....	„ „ „ ..	8	12 0	820	41·92	230
† „ ( „ Lower) .....	„ „ „ ..	8	2 0	745	41·56	230
† „ (Extwistle Moor) .....	„ „ „ ..	8	2 0	1310	42·61	...
D „ (Gawthorpe Hall) .....	Alfred Ford, Esq.....	8	1 3	316	41·68	241
D Preston (Haighton) .....	Mssrs. Myres, Veevers & Myres	5	1 2	255	40·14	196
Alston Reservoir .....	T. Cookson, Esq. ....	8	1 2	320	45·67	...
Worthdale (Watershed Res.)	W. Fowlds, Esq., C.E.	5	1 0	1115	55·78	...
§ Stonyhurst College .....	Rev. W. Sidgreaves ...	11	1 0	376	49·97	221
D§ „ „ „ (R) ..	„ „ „ ..	11	1 10	377	49·92	221
§ „ „ „ (M) ..	„ „ „ ..	11	1 0	376	48·23	...
Knowle Green (Preston W.W.) M	T. Cookson, Esq. ....	8	1 2	400	46·91	...
Loud-scales ( „ „ ) M	„ „ „ ..	8	1 2	400	44·57	...

## DIVISION VIII.—NORTH WESTERN COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain. 1907	Days with 01 or more recorded.
		Diameter	Height Above Ground.	Height Above Sea Level		
		in.	ft. in.	feet.	inches.	
<b>CENTRAL LANCASHIRE—(con.)</b>						
Spade Mill (Preston W.W.) ...M	T. Cookson, Esq. ....	8	1 2	400 T	46·51	...
Jeffrey Hill ( " " ) ...M	" " " " ....	8	1 2	900 T	50·69	..
d Beaton Fell (Barnsfold Res.) ...	Mssrs Myres, Veevers & Myres	5	1 6	506 A	42·58	207
Barrowford Reservoir .....	Leeds & L'pool Canal Co.	8	1 0	473	43·91	...
Foulridge (Canal Office) .....	" " " " ....	8	1 0	497	47·53	...
" (Upper Reservoir) ...	" " " " ....	8	1 0	582	42·80	...
Clitheroe (Downham Hall) .....	R. C. Assheton, Esq. ....	10	1 6	464 A	45·01	...
d Chatburn (Middlewood) .....	W. K. Wilkinson, Esq.	5	1 3	363 T	46·93	185
<b>NORTH LANCASHIRE.</b>						
d St. Anne's-on-the-Sea .....	Mr. W. E. Procter .....	5	1 0	25 T	32·65	210
d Barton (Anderton Fold) .....	W. H. Mason, Esq. ....	5	0 6	90 T	43·35	200
† Blackpool Sanatorium .....	F. J. H. Coutts, Esq. M.D.	5	1 0	59 A	34·10	...
d† " (Met. Observatory) ...	" " " " ....	5	1 0	67 A	33·35	217
d Poulton-le-Fylde (Singleton Pk.)	T. H. Miller, Esq. ....	8	0 11	50 ?	38·38	213
d St. Michael's-on-Wyre Vicarage	Rev. P. J. Hornby .....	5	1 0	25 T	42·35	227
d Garstang (Bruna Hill) .....	Mrs. Wilson .....	5	0 6	90 A	44·43	229
" (Holme Ho., Bleasdale)	A. Wilson, Esq. ....	5	1 0	650 T	60·25	...
" (Fairsnape Fell) .....	" " " " ....	5	1 0	1630 T	83·15	...
† " (Barnacre Reservoir) ...	C. Arthur, Esq. ....	5	1 0	617 A	52·50	...
† " (Grizedale Reservoir) ..	" " " " ....	5	1 0	519 T	47·71	...
† " ( " Stake House)	" " " " ....	5	1 0	775	52·57	...
d§ Fleetwood .....	M. S. Gault, Esq. ....	5	1 4	45 A	39·16	195
Pilling (Smallwood Hey) .....	Mr. J. H. Curwen .....	5	0 9	12 T	36·53	...
d Garstang (Forton) .....	J. H. Bonny, Esq. ....	5	1 6	65 L	42·77	226
Wyresdale (Abbeystead Res.) ...	J. C. Mount, Esq., C.E.	8	1 0	366 T	48·57	192
d " ( " Gardens)	Mr. T. Wyton .....	8	0 6	420	55·09	215
d Hampson-in-Ellel .....	W. G. Welch, Esq. ....	5	1 6	145 T	46·13	228
Quernmore (Old Gauge Basin) M	J. C. Mount, Esq., C.E.	8	1 0	963 T	56·53	..
d Lancaster (Bailrigg) .....	H. L. Storey, Esq. ....	5	1 3	200	48·46	225
Wyresdale (Wardstone) .....	J. C. Mount, Esq., C.E.	8	1 0	1440 T	72·90	...
Quernmore (Brow Top) .....	" " " " ....	8	1 0	552 T	50·00	207
d Heysham House .....	Miss Tomlinson .....	5	1 6	80	48·99	242
d Lancaster (Strathspey) .....	A. B. S. Welch, Esq. ....	5	1 0	85	45·13	240
" (Blea Tarn Reservoir) ..	J. C. Mount, Esq., C.E.	8	1 0	330	40·68	213
d§ " (Greg Observatory) ...	W. French, Esq. ....	8	1 0	312	45·55	223
" (Robert Street) .....	J. C. Mount, Esq., C.E.	8	1 0	62 T	43·55	222
Caton (Escowbeck) .....	A. Greg, Esq. ....	12	1 6	150 T	44·75	207
" Vicarage .....	Rev. W. J. Locke .....	5	1 0	160 T	44·60	...
d " .....	F. Storey, Esq. ....	5	1 0	250	43·79	219
d§ Morecambe .....	Mr. T. B. Lamb .....	8	1 0	24 A	51·31	210
d Wray Vicarage .....	Rev. C. L. Reynolds ...	5	1 0	165 A	46·35	221
d Bolton-le-Sands Vicarage .....	Rev. A. R. Tomlinson.	5	0 10	80 T	43·54	210
Melling (Hornby Castle) .....	Col. W. H. Foster ...	8	1 8	100	50·04	206
d Barrow-in-Furness .....	W. Fergusson, Esq. ....	11	1 6	36 A	38·94	187
d Carnforth (Over Kellet) .....	W. Farrer, Esq. ....	8	1 0	190	42·39	209
Arkholme (Storrs Hall) .....	F. F. Pearson, Esq. ....	5	1 0	220	48·78	...

DIVISION VIII.—NORTH WESTERN COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain. 1907	Days with .01 or more recorded.
		Diameter	Height Above Ground	Height Above Sea Level		
		in.	ft. in.	feet.	inches.	
NORTH LANCASHIRE—(con.)						
D Yealand Conyers .....	W. O. Roper, Esq.....	5	1 0	250	45·01	231
D Ulverston (Urswick School Ho.)	J. Dobson, Esq. ....	5	1 3	140 T	52·01	210
D Cartmel (Flookburgh) .....	J. J. Myres, Esq., C.E.	5	1 0	75	52·65	185
Lindal (Moor Mines).....	F. A. Ainslie, Esq. ...	5	7 0	...	52·64	169
D Cartmel (Carke) .....	W. R. Nash, Esq.....	5	1 0	76 T	51·31	219
D „ (Holker) .....	Duke of Devonshire ...	5	0 9	85 T	53·58	239
D Grange-over-Sands (Eggerslack)	Miss S. M. Arkwright..	5	2 3	140 B	59·71	217
„ „ „ (Merlewood).	E. C. Miller, Esq. ....	5	0 6	320 T	57·76	218
D Ulverston (Poaka Beck) . ....	W. Fergusson, Esq. ...	11	1 6	512 T	58·14	219
Cartmel (Pit Farm) .....	W. R. Nash, Esq. ....	5	1 0	122 T	54·38	...
D „ (Aynsome) .....	J. Stewart Remington Esq	8	2 0	137 T	64·92	248
D Finsthwaite Vicarage .....	Rev. S. Inman .....	8	1 2	250	71·18	234
D Broughton-in-Furness .....	C. P. Chambers, Esq..	5	1 3	101	64·24	217
D Blawith Vicarage .....	Rev. J. Ashburner.....	5	0 10	185 T	69·07	215
D Cartmel Fell Vicarage .....	Rev. W. Summers.....	5	2 3	220 T	67·58	219
D Coniston (Water Park).....	Miss C. Marshall .....	5	1 0	180	72·36	227
D Hawkshead (Tower Bank, Sawrey)	Major W. Alcock-Beck	5	1 0	342 T	74·67	228
D Duddon Valley (Seathwaite Vic.)	Rev. J. B. Ditchfield...	5	1 0	330 T	83·06	229
Monk Coniston Park .....	Miss C. Marshall .....	5	1 2	305 T	84·55	194
D Hawkshead (Esthwaite Mount)..	Miss Headlam.....	5	1 0	246 T	81·06	229
D Skelwith Fold [Ambleside] .....	Miss C. Marshall .....	5	1 0	333	87·10	238
„ „ [ „ „ ] ...M	„ „ „ .....	5	1 0	333	86·16	...

DIVISION IX.—YORKSHIRE.

WEST RIDING (SOUTHERN).						
D† Sheffield (W.W., Gleadless) ...	Mr. R. Rodinson .....	8	1 0	700 T	34·78	214
D Dinnington Hall .....	Mr. C. Hope .....	5	0 6	392 T	27·19	191
D Sheffield (Stumperlow Hall) ...	H. J. Dixon, Esq.....	5	1 0	700 T	39·98	222
D „ (Redmires Res.)... ..	L.S.M. Marsh, Esq., C.E.	10	5 0	1110 T	42·90	239
D „ ( „ „ ) weekly	„ „ „ .....	8	4 0	1110 T	42·27	...
D „ (Tylecote, Ranmoor) ...	J. Dixon, Esq. ....	5	1 0	610 T	37·19	216
D „ (Rivelin).....	L.S.M. Marsh, Esq., C.E.	10	4 0	564 T	37·70	220
D „ ( „ )..... weekly	„ „ „ .....	8	4 0	564 T	37·81	...
D „ (Crookes).....	„ „ „ .....	10	2 0	629 T	31·18	218
D „ ( „ )..... weekly	„ „ „ .....	8	2 0	629 T	31·42	...
D† „ (Weston Park) .....	E. Howarth, Esq. ....	8	1 0	430 T	31·58	208
D „ (Victoria Station) .....	Great Central Rly. Co..	9	3 6	188 T	26·24	...
D „ (Dale Dyke Reservoir). ..	L.S.M. Marsh, Esq., C.E.	10	3 0	715 T	40·69	228
D „ ( „ „ „ ) weekly	„ „ „ .....	8	3 0	715 T	40·12	...
D Rotherham (Ulley Reservoir) ...	E. B. Martin, Esq., C.E.	5	1 0	184 T	21·69	163
Sheffield (Tinsley Locks) .....	Great Central Rly. Co..	9	...	117 T	23·39	189
D Tickhill (Sandbeck Park) .....	Mr. G. Summers.....	8	1 0	150 T	24·13	186
D Rotherham (Moorgate) .....	C. E. Chrimes, Esq. ...	5	1 0	262	25·36	158
D Tickhill .....	G. G. Phillips, Esq. ...	8	1 0	61 T	25·21	181
Derwent Dale (Low Seat) No. 21	E. Sandeman, Esq., C.E.	5	1 0	1565	42·93	...
„ „ (Howden Ho.) 19	„ „ „ .....	8	1 0	775 T	48·11	245



## DIVISION IX.—YORKSHIRE—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain. 1907	Days with .01 or more recorded.
		Diameter	Height Above Ground		Height Above Sea Level	
		in.	ft.	in.	feet.	inches.
W. RIDING (SOUTHERN)-(con.)						
Derwent Dale (Row Top) No. 20	E. Sandeman, Esq., C.E.	5	1	0	1260	45.22
„ „ (Sandy Lee) No. 7	„ „ „	5	1	0	1340	49.35
„ „ (Crowstones) No. 3	„ „ „	5	1	0	1660	51.96
„ „ (Featherbed Moss) 1	„ „ „	5	1	0	1670	51.78
D Rotherham (Thrybergh) .....	F. Oscar Kirby, Esq., C.E.	8	1	0	184	26.08
D Sheffield (Chapelton) .....	Mr. D. Bell .....	8	5	0	581	27.20
D Doncaster (Firsby Reservoir) ...	F. Oscar Kirby, Esq., C.E.	8	1	4	189	27.35
D „ (Wadworth Hall) .....	Rev. J. C. Ross .....	8	1	0	190	27.67
D Wentworth Woodhouse .....	Mr. J. Hughes .....	5	0	10	360	27.96
D Swinton (Council Offices) .....	R. Fowler, Esq., C.E. ...	8	1	0	126	25.19
D Mexborough .....	G. Fenwick Carter Esq., C.E.	5	1	6	58	22.81
Wortley .....	Great Central Rly. Co. ...	9	3	6	548	29.03
Elsecar .....	„ „ „	9	3	6	181	22.79
Langsett Moor (Pike Lowe) .....	J. H. Taylor, Esq., C.E.	5	1	0	1358	53.13
„ „ (Ewden Height) .....	„ „ „	5	1	0	1099	46.26
„ „ (Range Moor) .....	„ „ „	5	1	0	1040	50.90
D „ „ (Upper Midhope) .....	„ „ „	5	1	0	912	47.72
D Wortley (Service Reservoir) .....	„ „ „	5	1	0	700	30.86
D† Langsett .....	No. 1 L.S.M. Marsh, Esq., C.E.	8	4	3	960	41.19
D† „ „ .....	No. 2 „ „ „	8	4	9	761	39.74
D Wath-upon-Deerne (Chapel St.) ..	Dr. F. J. Burman .....	8	3	0	188	25.61
Bolton-upon-Deerne .....	T. Washington, Esq. ...	5	1	0	130	24.79
Worsborough .....	Great Central Rly. Co. ...	9	3	6	225	24.71
D Stainborough (Wentworth Castle) ..	W. Fisher, Esq. ....	8	2	6	520	26.70
Doncaster (Hexthorpe Hall) ...	Harry Morris, Esq. ...	5	1	0	50	26.49
„ „ .....	Great Central Rly. Co. ...	9	3	6	32	23.63
D „ „ (Pumping Station) ...	F. Oscar Kirby, Esq., C.E.	8	1	2	30	28.03
D „ „ (Market Place) .....	Mr. C. Parkin .....	5	4	9	46	26.07
Dunford Br. (Up. Windleden) M	H. Dearden, Esq., C.E. 12	12	2	2	1100	54.15
„ „ (Dearden Res.) ... M	„ „ „	12	1	6	1244	53.33
„ „ Station .....	Great Central Rly. Co. ...	9	3	6	954	49.64
D „ „ Reservoir .....	H. Dearden, Esq., C.E. 12	12	2	0	1111	51.57
Penistone .....	Great Central Rly. Co. ...	9	3	6	717	33.54
„ „ (Hazlehead) .....	„ „ „	9	3	9	868	44.95
D „ „ (Grammar School) ...	Joseph W. Fulford, Esq.	5	1	2	650	33.33
„ „ (Ingbirchworth Res.) ..	J. H. Taylor, Esq., C.E.	5	1	3	853	37.51
D Barnsley (Church Street) .....	Dr. F. J. Sadler .....	5	5	2	350	26.34
„ „ (Jordan Hill) .....	J. H. Taylor, Esq., C.E.	8	1	3	460	25.59
„ „ .....	Great Central Rly. Co. ...	9	3	6	317	24.34
„ „ (Cawthorne) .....	Rev. C. T. Pratt .....	5	1	6	340	30.82
D Doncaster (Kirk Bramwith) .....	H. A. Brundell, Esq., C.E.	5	1	0	17	26.47
D Hemsworth Hall .....	F. G. Leatham, Esq. ...	5	1	0	250	25.18
D Ackworth (Hillthorpe) .....	Mrs. F. Hatchard .....	5	1	5	175	27.47
D „ „ (Nostell Priory) .....	Mr. J. Easter .....	5	4	0	...	26.32
Goole (Swinfleet) .....	Mr. G. Harrison .....	5	5	6	10	27.58
D „ „ ( „ ) .....	A. B. Hobson, Esq. ...	5	1	0	10	26.40
D „ „ .....	W. E. Grayburn, Esq.	5	1	0	18	27.52

## DIVISION IX.—YORKSHIRE—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain. 1907	Days with .01 or more recorded.
		Diameter	Height Above Ground	Height Above Sea Level		
		in.	ft. in.	feet.	inches.	
WEST RIDING (CENTRAL).						
Greenfield (Chew Mount) .....	G. H. Hill, Esq., C.E.	7	0 7	...	54.90	...
„ (Yeoman Hey) .....	„ „ „ „	7	0 7	759	53.00	...
Holmbridge (Yateholme) .....	O. J. Kirby, Esq., C.E.	7	1 0	861	56.20	...
„ (Holme Styes Res.) .....	L. Hinchcliffe, Esq. ...	7	2 6	830	48.40	...
„ (Boshaw Whams Res.) .....	„ „ „ „	7	2 6	930	50.80	...
„ (Bilberry Reservoir) .....	„ „ „ „	7	2 6	820	61.80	...
Saddleworth Station .....	M. L. K. Jones, Esq. ....	5	4 2	630	43.78	...
Strinesdale [Oldham] .....	C. J. Batley, Esq., C.E.	5	4 0	815	41.74	227
Meltham (Harden Moss) .....	J. W. Schofield, Esq. ....	8	1 2	1212	49.38	...
„ „ „ „ <i>new g.</i> .....	„ „ „ „	8	1 0	1212	45.91	...
Wessenden Head .....	„ „ „ „	8	1 0	1270	46.40	...
„ (Hollin Bank Moss) .....	„ „ „ „	8	1 0	1360	31.05?	...
„ (Great Butterley) .....	„ „ „ „	8	1 0	1110	48.07	...
„ (Bobus) .....	„ „ „ „	8	1 0	1200	46.00	...
d Standedge (Castleshaw, Broadhead) .....	C. J. Batley, Esq., C.E.	8	4 6	876	43.90	227
† „ „ „ „ Cudworth) .....	„ „ „ „	5	4 6	1410	32.80?	226
„ „ „ „ (Redbrook Res.) <i>old g.</i> .....	L. K. Jones, Esq. ....	8	1 8	1150	50.84	...
„ „ „ „ „ <i>new g.</i> .....	„ „ „ „	8	1 6	1150	50.02	...
Meltham (Brow Grains) .....	J. W. Schofield, Esq. ....	8	1 0	900	46.51	...
† Denshaw (Ox Hey) .....	C. J. Batley, Esq., C.E.	8	4 6	1030	47.12	235
d† „ „ (New Year's Bridge) .....	„ „ „ „	8	4 0	1012	49.38	235
† „ „ (Ready Con Dean) .....	„ „ „ „	8	4 0	1414	46.70	234
Meltham (Royd Edge) .....	C. L. Brook, Esq. ....	8	1 0	585	54.26	...
d „ „ (Harewood Lodge) .....	„ „ „ „	8	1 0	514	45.70	235
„ „ Grange .....	J. W. Schofield, Esq. ....	8	1 2	850	43.56	...
Marsden (Deer Hill) .....	„ „ „ „	8	1 0	1149	45.76	...
„ „ „ „ <i>new g.</i> .....	„ „ „ „	8	1 0	1149	48.29	...
Wakefield (Woolley Park Gardens) .....	Mr. T. Wells .....	5	1 6	400	28.57	205
d Slaithwaite (Blackmoorfoot) .....	J. W. Schofield, Esq. ....	8	1 0	800	47.60	239
d „ „ (Inglewood) .....	J. Woodhead, Esq. ....	5	1 0	550	45.89	244
Wakefield (Walton Hall) .....	E. Simpson, Esq. ....	5	1 0	140	21.79	...
Huddersfield (Bankfield, Golcar) .....	J. R. Sykes, Esq. ....	5	1 0	400	40.45	202
d§ „ „ (Cemetery) .....	Mr. J. Firth .....	8	1 0	410	35.45	231
d§ „ „ (Dalton) .....	J. W. Robson, Esq. ....	8	1 0	350	30.07	211
d† Rishworth (Ringstone Res.) .....	C. Clemesha Smith Esq. CE	5	1 0	990	46.50	216
d „ „ (Stott Hall) .....	„ „ „ „	5	1 0	935	50.24	215
d† „ „ (Great Walden Edge) .....	„ „ „ „	5	0 10	1135	57.39	245
Horbury (Highfields) .....	J. H. Green, Esq. ....	5	1 0	226	25.34	...
d Mirfield (Cote Wall) .....	J. Watson-Kaye, Esq. ....	8	1 2	200	33.70	191
Ossett (Lowood House) .....	Dr. W. Greenwood ...	5	0 6	350	23.96	...
d§ Wakefield Prison .....	A. French, Esq. ....	5	1 0	96	24.13	178
d† „ „ (Stanley Grange) .....	H. S. Haworth, Esq. ....	5	1 0	235	22.35	202
Elland .....	P. H. Whitwam, Esq. ....	8	1 0	307	34.60	173
Batley (Staincliffe Reservoir) .....	O. J. Kirby, Esq., C.E.	7	1 0	492	23.12	...
d „ „ (Woodwell Dépôt) .....	„ „ „ „	8	1 0	301	24.84	165
d† Ardsley Reservoir .....	C. Clemesha Smith Esq. CE	5	1 2	395	25.22	191
d „ „ (Jaw Hill) .....	„ „ „ „	...	...	...	24.69	159
Sowerby Bridge (Brockwell Triangle) .....	W. Cyril Empson, Esq. ....	8	1 0	500	41.81	...

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain.	Days with 40 or more recorded.	
		Diameter	Height Above Ground	Height Above Sea Level	1907		
		in.	ft.	in.	feet.	inches.	
W. RIDING (CENTRAL)—(con.)							
W. Sowerby Bridge (Haugh End) ...	J. S. Rawson, Esq. ...	5	0	8	450 T	41.13	231
W. Fielden Hospital [Todmorden] ...	Mr. F. Rogers	5	1	0	650 T	45.55	213
W. Sourhall Hospital [ " ] ...	" "	5	1	0	1020 T	53.16	210
Halifax (Bents, Norland) ...	M. J. S. Rawson, Esq. ...	5	0	8	800 T	35.53	...
" (Salterhebble) ...	(R) R. Lyon, Esq. ...	11	4	0	255 T	31.82	...
W. " (Hall Ings, S. Owram) ...	Rev. G. E. Aspinall ...	5	0	7	750 T	26.88	208
" (Thorpe) ...	No. 1, M. J. S. Rawson, Esq. ...	8	0	8	345 T	42.05	...
W. " ( " ) ...	No. 2 ...	5	0	8	345 T	43.77	230
W. " (Public Library) ...	E. Green, Esq. ...	8	1	0	625 T	34.00	208
" (Albert) ...	R. J. Hartley, Esq., C.E. ...	5	1	0	795 T	34.33	...
" (Gibbet) ...	" " "	5	6	0	568 T	34.88	...
" (Ramsden Wood) ...	" " "	8	1	2	816 T	36.45	...
Hebden Bridge (Falling Royd) ...	A. R. Crossley, Esq. ...	4	1	0	479 T	43.24	218
" (Summerfield) ...	J. Hoyle, Esq. ...	5	1	0	800 T	42.73	209
Halifax (Castle Carr) ...	R. J. Hartley, Esq., C.E. ...	...	...	...	1060 T	43.71	...
" (Midgley Moor) ...	M. " " "	7	0	6	1350 T	42.59	...
" (Warley Moor) ...	M. " " "	7	0	6	1325 T	43.49	...
" (Ogden) ...	M. " " "	8	1	3	990 T	40.70	...
" (Ovenden Moor) ...	" " "	...	...	...	1375	44.95	...
" (Widdop) ...	" " "	...	...	...	1050	42.59	...
" (Walshaw Dean) ...	M. " " "	8	0	3	1380 T	39.11	...
W. South Milford Rectory ...	Rev. F. J. Young ...	5	1	2	70 T	28.72	217
W. Garforth ...	Meteorological Office ...	...	...	...	198	27.15	202
Pudsey ...	Dr. F. H. Squire ...	5	1	0	521 T	28.82	...
Bradford (Horton, Grange Road) ...	Mr. A. E. Chilton ...	5	5	0	450 T	36.53	237
" (Queensbury) ...	R. J. Foster, Esq. ...	8	2	2	1050	35.76	218
" (Brayshaw Reservoir) ...	J. Watson, Esq., C.E. ...	5	1	0	982 T	37.87	212
W. " (The Exchange) ...	H. A. Johnson, Esq., C.E. ...	8	65	6	395 T	34.82	224
W. " (Duckworth Terrace) ...	E. Priestman, Esq. ...	6	1	0	600	36.63	223
" (Thornton Moor) ...	J. Watson, Esq., C.E. ...	5	1	0	1218 T	44.51	282
" (Stubden) ...	old g. " " "	8	1	0	1075 T	52.36	256
" ( " ) ...	new g. " " "	8	1	0	1075 T	49.39	256
" ( " Reservoir) ...	" " "	5	1	0	1071 T	47.58	256
" (Nan Scar, Oxenhope) ...	M. " " "	5	1	0	1101 T	49.24	...
" (Stairs Top, " ) ...	M. " " "	5	1	0	1401 T	45.90	...
" (Leeming Reservoir) ...	M. " " "	5	1	0	850 T	41.21	219
" (Doe Park Res.) ...	old g. " " "	8	1	0	810 T	50.30	246
" ( " " " ) ...	new g. " " "	5	1	0	811 T	42.37	246
" (Leeshaw Res.) ...	M. " " "	5	1	0	875 T	48.89	...
" (Chellow Dean) ...	" " "	5	1	0	645 T	28.72	214
" ( " Heights) ...	" " "	5	1	0	848	37.24	239
" (Hewenden Res.) ...	old g. " " "	5	1	0	700 T	43.10	242
" ( " " ) ...	new g. " " "	5	1	0	701 T	40.67	242
" (Heaton Res.) ...	old g. " " "	8	1	0	530 T	33.93	224
" ( " " ) ...	new g. " " "	5	1	0	531 T	32.86	224
Leeds (Wortley Res.) ...	C. G. Henzell, Esq., C.E. ...	8	0	9	307 T	29.05	193
" (Knostrop) ...	" " "	8	0	9	72 T	25.02	182
" (Holbeck) ...	Messrs. J. Rhodes & Co. ...	10	32	0	127 T	21.25	...

## DIVISION IX.—YORKSHIRE—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.				Depth of Rain. 1907	Days with .01 or more recorded
		Diameter	Height above Ground.		Height above Sea Level		
		in.	ft.	in.	feet.	inches.	
W. RIDING (CENTRAL)—(con.)							
D Leeds (Holbeck W. Works Depot)	C.G. Henzell, Esq., C.E.	8	0	9	93 $\pi$	26.05	181
D „ (Museum).....	H. Crowther, Esq.....	10	46	0	177 $\pi$	25.65	194
„ (Woodhouse Moor).....	C.G. Henzell, Esq., C.E.	8	0	9	307 $\pi$	28.01	203
„ (Weetwood Reservoir) ...	„ „ „	8	0	9	328 $\pi$	27.02	201
„ ( „ „ „ Lodge).....	J. P. Reay, Esq. ....	5	0	9	400 $\pi$	27.16	174
D „ (Allerton Hill) .....	C.R. Fenwick, Esq., C.E.	5	0	7	418 $\pi$	28.05	214
D „ (Elmet Hall, Roundhay)...	Mr. J. Purvis.....	5	1	6	400 $\pi$	35.07	162
Shipley (Cragg End) .....	Leeds & L'pool Canal Co.	8	1	0	304	30.05	...
„ (West Point).....	A. M. Paterson, Esq....	5	0	6	382 $\pi$	32.23	197
Oakworth (Oldfield Filters).....	W. Fowlds, Esq., C.E.	5	1	0	1008 $\pi$	44.78	...
Bingley (Gilstead Filters) .....	J. Watson, Esq., C.E..	5	1	0	572 $\pi$	29.71	174
Keighley (Long Lee).....	Keighley News .....	...	...	...	...	34.29	225
D „ (The Knowle) .....	W. Clough, Esq. ....	5	1	0	385 $\pi$	37.24	221
D Adel (Lawns Wood) .....	Mr. S. R. Dyson.....	5	1	0	475 $\pi$	30.08	169
Bingley (Sunnydale).....	J. Watson, Esq., C.E..	5	1	0	825	29.71	208
D Skipton (Silsden) .....	Mr. A. Elder .....	5	1	0	432 $\pi$	31.67	196
„ ( „ „ „ Gill Grange) ...	J. Watson, Esq., C.E..	5	1	0	883	30.12	...
„ ( „ „ „ Reservoir) .....	„ „ „	5	1	0	560 $\pi$	31.27	201
„ (Cringle's Reservoir) ...	„ „ „	5	1	0	760 $\pi$	31.74	201
„ (Craven Herald Office)...	E. Townsend, Esq.....	8	2	4	360	33.62	225
„ (Hawthorne Cottage) ...	Leeds & L'pool Canal Co.	8	1	0	380	32.39	...
Gargrave (Banks Hill Bank Newton)	„ „ „	8	1	0	545	37.06	...
„ (Ray Bridge Hill) .....	„ „ „	8	0	10	459	32.05	...
„ (Great Scarnber Hill)...	„ „ „	8	0	9	676	34.12	...
Winterburn (Long Hill) .....	„ „ „	8	0	9	705	32.41	...
„ (Brown Hill).....	„ „ „	8	1	0	961	45.84	...
D Malham Tarn.....	Mr. T. Coulthard .....	8	1	0	1296 $\pi$	59.80	238
WEST RIDING (NORTHERN).							
D Aberford (Lotherton Hall) .....	Mrs. Trench Gascoigne	8	1	1	200 ?	20.74	168
D Saxton Vicarage.....	Rev. C. D. Ash .....	5	2	6	95	27.03	210
D Bolton Percy (Appleton House)..	W.R. Innes Hopkins Esq	5	0	9	50 $\pi$	25.13	193
Adel (Eccup, South) .....	C.G. Henzell, Esq., C.E.	8	0	9	390 $\pi$	30.15	214
„ ( „ „ „ East) .....	„ „ „	8	0	9	375 $\pi$	32.15	190
D Harewood House .....	Countess of Harewood.	5	0	10	300	34.36	224
D Otley (Council Offices) .....	J. E. Sharpe, Esq.....	5	12	0	204 $\pi$	34.37	199
D „ (Sewage Works) ..	„ „ „	5	0	9	169 $\pi$	31.47	188
Harewood (Arthington) .....	C.G. Henzell, Esq., C.E.	8	0	9	139 $\pi$	39.72	184
D Bolton-by-Bowland (Bolton Hall)	Mrs. Wright .....	8	0	6	300 $\pi$	51.06	197
D Ilkley (Silverwell Cottage) .....	Mr. T. C. Gill.....	5	1	0	904 $\pi$	39.96	209
D „ (Glen Rosa).....	F. A. Aykroyd, Esq....	8	1	1	450	35.06	189
D „ (Eaton Road) .....	A. Wilson, Esq.....	5	1	0	395 $\pi$	37.71	222
D „ (Brook Street) .....	G. W. Worfolk, Esq...	5	20	0	312 $\pi$	35.70	197
Pannal (Kirkby Overblow) .....	A. Rowntree, Esq.....	5	0	9	340 $\pi$	27.14	...
Leathley (Lindley Wood, S.) ...	C.G. Henzell, Esq., C.E.	8	0	9	312 $\pi$	35.26	230
„ ( „ „ „ „ N.) ...	„ „ „	8	0	9	320 $\pi$	34.81	230
D Ilkley (March Gill Reservoir) ...	J. E. Sharpe, Esq.....	5	0	9	665 $\pi$	32.43	197

## DIVISION IX.—YORKSHIRE—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain. 1907	Days with .01 or more recorded.
		Diameter	Height Above Ground.		Height Above Sea Level	
		in.	ft.	in.	feet.	inches.
W. RIDING (NORTHERN)-(con.)						
† York (Mount Villas) .....	Mrs. Rowntree .....	5	1	0	70	25·13
† „ (Cherry Hill) .....	Mrs. H. Richardson .....	5	1	6	50	26·23
† „ (Museum Gardens) .....	Meteorological Office .....	8	1	0	57	25·60
D „ (The Retreat) .....	Dr. H. J. Mackenzie .....	5	1	0	74 ½	25·93
Slaidburn (Knowlmere Manor)...	W. Peel, Esq. ....	5	1	0	417 ½	61·09
„ (Hareden Brook) ... M	T. Cookson, Esq. ....	8	1	2	540	68·90
„ (Langden Brook) ... M	„ „ „ .....	8	1	2	556	70·05
„ (Whiteholme) .....	W. K. Wilkinson, Esq. ....	5	1	3	475 ½	54·93
Skipton (Counter Hill) .....	J. Watson, Esq., C.E. ....	5	1	0	951 ½	31·51
„ (Chelker Reservoir) ... M	„ „ „ .....	5	1	0	730 ½	34·13
Spofforth (Sewage Works) .....	F. J. Dixon, Esq., C.E. ....	5	1	0	184 ½	28·85
Fewston (Timble Ings) .....	C. G. Henzell, Esq., C.E. ....	8	0	9	912 ½	40·23
„ ( „ ) .....	„ „ „ .....	8	0	9	720 ½	30·74
„ (Swinsty, E.) .....	„ „ „ .....	8	0	9	460 ½	38·77
„ ( „ W.) .....	„ „ „ .....	8	0	9	425 ½	39·76
„ (South) .....	„ „ „ .....	8	0	9	525 ½	38·04
„ (North) .....	„ „ „ .....	8	0	9	525 ½	35·74
„ (Blubberhouses) .....	„ „ „ .....	8	0	9	575 ½	40·14
D Wetherby (Ribston Hall) .....	Mr. J. McClelland .....	5	1	2	130 ½	29·44
Bolton Abbey Estate Office .....	A. Downs, Esq. ....	5	1	2	350	41·45
Harrogate (Ten Acres Reservoir)	F. J. Dixon, Esq., C.E. ....	8	1	6	620 ½	30·94
„ (Bonny Cap) .....	„ „ „ .....	8	1	6	710 ½	37·81
„ (Wilson's Farm) .....	„ „ „ .....	8	1	6	630 ½	34·56
„ (Scargill) .....	„ „ „ .....	8	1	0	646 ½	35·87
„ (Beaver Dyke Res.) ...	„ „ „ .....	8	0	11	575 ½	34·20
D § „ (Harlow Moor Obsy.) .....	„ „ „ .....	5	1	0	480 ½	34·45
„ ( „ Hill Res.) No. 1 .....	„ „ „ .....	8	1	0	552 ½	31·74
„ ( „ „ „ ) No. 2 (R) .....	„ „ „ .....	8	4	6	552 ½	29·64
„ (St. James' Park) ..	„ „ „ .....	7	1	0	400 ½	28·51
„ (Irongate) .....	„ „ „ .....	8	1	6	455 ½	32·41
D „ (The Stray) .....	Mr. G. W. Gledhill .....	5	1	0	380	32·43
D „ (Park Parade) .....	„ „ „ .....	5	1	0	400	34·55
Slaidburn (Dunsop Houses) .....	W. Stubbs, Esq., C.E. ....	8	1	0	450 ½	66·16
„ (Middle Knoll) ... M	„ „ „ .....	8	2	6	1298 ½	57·50
„ (Brennand) .....	„ „ „ .....	8	1	0	820 ½	69·48
„ (Whitendale) .....	„ „ „ .....	8	1	0	830 ½	72·69
„ (Baxton Fell) ... M	„ „ „ .....	8	2	6	1540 ½	61·80
D Goldsborough Hall .....	Mr. R. Goodall .....	5	1	0	118 ½	30·19
Knaresborough (Water Tower) ...	F. J. Dixon, Esq., C.E. ....	8	1	0	240 ½	29·60
Barden Reservoir .....	J. Watson, Esq., C.E. ....	8	1	2	746 ½	44·50
„ „ „ .....	„ „ „ .....	5	1	2	746 ½	43·55
„ „ (Upper) .....	„ „ „ .....	5	1	0	1250 ½	43·58
Harrogate (Bilton Sewage Works)	F. J. Dixon, Esq., C.E. ....	5	1	0	208 ½	29·36
D Nun Monkton (Priory) .....	H. Horsfield, Esq. ....	5	0	6	45	25·83
D Birstwith (Swarcliffe) .....	Capt. C. S. Greenwood. ....	5	1	0	510 ½	38·24
D „ (The Moss) .....	C. S. Dixon, Esq. ....	5	1	0	230	36·17
Burnsall (Thorpe Fell) .....	J. Watson, Esq., C.E. ....	5	1	0	1661 ½	43·73
„ (Sandbed Beck) .... M	„ „ „ .....	5	1	0	676 ½	46·84

### DIVISION IX.—YORKSHIRE—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.				Depth of Rain.	Days with "01 or more recorded.
		Diameter	Height Above Ground.		Height Above Sea Level	1907	
			ft.	in.	feet.		
W. RIDING (NORTHERN)-(con.)		in.	ft.	in.	feet.	inches.	
D Burnsall Rectory .....	Rev. W. J. Stavert ...	8	4	7	503 A	46·54	228
Ouseburn(ThorpeUnderwoodHall)	F. W. Slingsby, Esq....	5	1	1	60 T	27·20	211
D Settle (The Terrace) .....	J. W. Shepherd, Esq..	8	1	2	531 A	42·52	226
\$ „ (Giggleswick School).....	Meteorological Office ...	...	1	0	500	41·89	215
D Pateley Bridge (Castle Stead) ...	Mr. C. May.....	5	1	0	410	42·83	204
Grimwith Reservoir .....old g.	J. Watson, Esq., C.E..	8	1	0	890 A	44·69	230
„ „ ..... new g.	„ „ „ „ ...	5	1	0	893 A	43·68	230
D Grassington(Chapel Ho.,Kilnsey)	G. E. Clayton, Esq. ...	5	3	0	670 T	54·94	223
Pateley Moor (Smaden Head) ...	C.G. Henzell, Esq.,C.E.	8	0	9	784 A	34·31	204
Dallow Moor (High Skeldon) ...	„ „ „	5	0	9	674 A	38·54	215
† „ „ (Harper Hill) .....	„ „ „	5	0	9	858 A	36·75	210
D Ripon (Studley Royal Gardens).	O. H. Wade, Esq. ....	5	1	6	250	29·58	204
D „ (The Red House) .....	F. D. Wise, Esq. ....	5	1	0	120	30·45	178
Ramsgill(Raygill House) .....	J. Watson, Esq., C.E..	5	1	0	925 T	53·00	196
„ „ .....	„ „ „	5	1	0	450 T	36·02	175
D Arncliffe Vicarage .....	Rev. W. A. Shuffrey...	8	2	6	732 T	63·30	227
D „ (Amerdale).....	J. Hammond, Esq. ...	8	1	6	742 T	59·68	235
D High Bentham .....	Mr. Bryan Holmes.....	5	1	0	412 T	40·74	221
D Ingleton (Kingsdale Head) .....	Mr. J. Webster .....	5	0	10	994 A	58·59	195
Nidderdale(High Riggs) .....	J. Watson, Esq., C.E..	5	1	0	1010 T	55·66	204
„ (Angram) .....	„ „ „	5	1	0	1150 T	51·03	243
„ (New Houses) .....	„ „ „	5	1	0	755 T	45·25	214
† Kirkby Malzeard (Drovers' Inn)..	C.G. Henzell, Esq., C.E.	5	0	9	576 A	41·92	222
† „ „ (Hawset) .....	„ „ „	8	0	9	820 A	38·82	225
„ „ (HambletonHill)	„ „ „	8	0	9	1106 A	40·85	...
† „ „ (Bagwith Brae).	„ „ „	5	0	9	703 A	35·00	221
„ „ (Stone &Ears Wham)	„ „ „	8	0	9	1118 A	42·80	...
n Ripon (High Bank, Mickley) ...	Miss Harrison .....	5	1	6	225 T	30·07	182
Masham Moor (Benjy Guide).....	C.G. Henzell, Esq., C.E.	8	0	9	1411 A	42·53?	...
„ „ (Bracken Hill) ...	„ „ „	8	0	9	1450 A	41·63	...
† „ „ (Somerside) .....	„ „ „	5	0	9	928 A	38·04	179
† „ „ (High Sour Mire)	„ „ „	5	0	9	884 A	32·20	203
„ „ (Thorney Grane)..	„ „ „	8	0	9	1175 A	43·09	...
„ „ (Spruce Gill).....	„ „ „	8	0	9	1187 A	42·72	...
„ „ (Healey).....	„ „ „	5	0	9	542 A	33·26	191
† „ „ (Low Houses).....	„ „ „	5	0	9	693 A	39·90	232
„ „ (Black Brunt) ...	„ „ „	8	0	9	1160 A	42·08	...
„ „ (Brown Beck) ...	„ „ „	5	0	9	1150 A	37·85	...
„ „ (Roundhill Res.).	F. J. Dixon, Esq., C.E.	8	0	6	743 A	34·13	203
„ „ (Farm)	„ „ „	8	0	6	975	35·57	198
D Wharfedale (Oughtershaw Hall)	Miss Woodd .....	8	1	6	1175 T	69·84	193
D Sedbergh (Dent Vicarage) .....	Rev. J. A. Hayden ...	5	1	0	484 T	73·48	230
D „ (Akay) .....	C. E. Taylor, Esq.....	5	1	0	400 T	61·78	218
D „ (Cemetery).....	Mr. J. Anderson.....	5	1	0	374 A	58·66	228
„ (Thorns Hall) .....	Miss Sedgwick .....	5	1	0	400 T	56·79	209
„ (Croasdale Beck) .....	W. Atkinson, Esq.....	5	1	0	623 T	65·81	184

### DIVISION IX.—YORKSHIRE—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain.	Days with $\geq 0.1$ or more recorded.	
		Diameter	Height Above Ground.		Height Above Sea Level		1907
		in.	ft.	in.	feet.	inches.	
EAST RIDING.							
§ Patrington (Spurn Head) .....	Meteorological Office ...	8	1	0	27	18.72	177
" .....	W. B. Pugh, Esq. ....	5	2	6	46 $\pi$	20.55	...
D Hull (Pearson Park) .....	H. B. Witty, Esq. ....	5	0	10	6	24.82	195
D " (Springhead) .....	F. J. Bancroft, Esq., C.E.	5	1	7	16 $\pi$	24.62	217
D Cottingham (Water Works) .....	" .....	5	1	1	26 $\uparrow$	25.01	195
D Beverley (East Riding Asylum) .....	Dr. M. A. Archdale ...	5	1	0	175 $\uparrow$	27.66	211
D " (Register House) .....	G. A. Thompson, Esq. ...	5	1	0	22	26.98	204
" (New Walk) .....	W. Evans, Esq., C.E. ...	5	3	0	40	26.36	211
" (Hull Bridge) .....	" .....	5	2	6	11 $\pi$	23.36	200
Market Weighton (Dalton Hall) .....	Mr. W. Jackson .....	5	1	6	150 $\uparrow$	29.62	203
§ Deighton Grove [York] .....	Miss M. L. Whitehead ..	5	2	0	40 $\uparrow$	25.16	203
D Hornsea (Elim Lodge) .....	T. B. Holmes, Esq. ...	8	1	6	30 $\pi$	25.00	187
Brandesburton (Hempholm Lock) .....	W. Evans, Esq., C.E. ...	5	2	6	11 $\pi$	24.51	203
D Pocklington (Warter) .....	J. Coxon, Esq. ....	5	1	10	230 $\uparrow$	27.75	179
D Heslington [York] .....	Hon. L. de Yarburgh-Bateson	8	0	7	35	27.34	169
Dunnington Hall [York] .....	Miss Hildyard .....	8	1	2	110	24.60	212
§ Driffield (York Road) .....	W. E. Lovel, Esq. ...	5	1	0	76 $\uparrow$	26.82	194
D " (Lockwood Street) .....	W. H. Blakeston, Esq. ...	8	1	0	60 $\uparrow$	27.57	180
Wetwang .....	Rev. E. M. Cole .....	5	1	0	235 $\uparrow$	26.18	188
D Thixendale .....	Rev. W. H. Fox .....	10	0	10	425 $\uparrow$	30.48	216
D Lowthorpe (The Elms) .....	H. Onslow Piercy, Esq. ...	5	1	0	63 $\pi$	25.26	179
D Birdsall Gardens .....	Mr. J. Anderson .....	5	1	3	308	28.79	199
Bridlington .....	<i>Bridlington Free Press</i> ...	...	...	...	...	24.88	...
D Welham [Malton] .....	Donald Walker, Esq. ...	5	0	10	75 $\uparrow$	26.95	151
D Rillington (Scampston Hall) .....	Mr. F. C. Puddle .....	5	1	6	102 $\pi$	24.34	201
Hunmanby (Holly Bank) .....	Miss Suter .....	5	1	2	...	23.77	...
D Filey (Deepdene) .....	A. V. Machin, Esq. ...	5	0	8	44 $\pi$	23.51	193
NORTH RIDING.							
D Warthill (Brockfield Hall) .....	W. Talbot Agar, Esq. ...	5	2	0	54 ?	26.71	258
Alne .....	R. Godfrey, Esq., C.E. ...	5	0	10	80	26.04	175
Terrington Hall .....	Mr. T. Suffield .....	5	1	5	300 $\uparrow$	27.18	253
D New Malton .....	M. B. Slater, Esq. ....	10	0	10	139 $\pi$	24.79	208
D § Hovingham Hall .....	Sir W. H. A. Worsley, Bt.	5	0	6	120 $\uparrow$	31.43	195
D Thirsk (Dalton Parsonage) .....	Rev. G. H. Chilman ...	5	1	0	87 $\uparrow$	24.36	223
§ Ampleforth .....	Meteorological Office ...	...	1	0	350	27.59	...
D Thirsk (Sowerby) .....	A. C. Bamlett, Esq. ...	5	...	...	...	25.91	166
D " (The Hall) .....	Reginald Bell, Esq. ...	5	1	10	121 $\pi$	24.76	184
" (Mount St. John) <i>Snow g.</i> .....	A. J. Walker, Esq. ...	5	1	7	535 $\pi$	25.77	...
" ( " " " ) " " .....	" " " " " " .....	5	1	0	523 $\pi$	26.00	204
D " ( " " " " ) " " .....	" " " " " " .....	5	1	0	523 $\pi$	26.02	204
" ( " " " " ) " " .....	" " " " " " .....	5	1	10	542 $\pi$	25.82	...
" (Boltby) .....	" " " " " " .....	5	0	7	495 $\pi$	27.29	...
" (Cliff Head, Boltby) ... M	" " " " " " .....	5	4	7	773 $\pi$	22.74	...
" ( " " " " ) " " .....	" " " " " " .....	5	1	4	772 $\pi$	28.15	...
" (Newbuilding) .....	G. S. Thompson, Esq. ...	8	1	3	600	26.89	173
D Thornton-le-Dale .....	A. Priestman, Esq. ...	5	1	0	150 $\uparrow$	24.32	205

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## DIVISION IX.—YORKSHIRE—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.				Depth of Rain. 1907	Days with '01 or more recorded.
		Diameter	Height Above Ground.		Height Above Sea Level		
		in.	ft.	in.	feet.	inches.	
NORTH RIDING—(con.)							
D Pickering .....	Dr. J. L. Kirk .....	5	1	0	150	24.38	214
D Bedale (Burneston) .....	Rev. Canon J. T. Hartley .....	5	3	9	110 T	25.37	185
„ (Thorpe Perrow) .....	Mr. W. Pattison .....	8	1	6	140	27.98	160
D „ (Park House) .....	Miss M. Greenwood ...	5	1	1	180	26.39	207
„ (Newton House) ..	Mr. W. Paylor .....	5	2	6	125	25.30	...
D Northallerton (Thornton-le-Moor)	Col. R. W. Peckitt ...	5	1	0	136 T	26.94	196
D Leyburn (Bolton Hall) .....	Mr. F. Scrivener .....	8	1	0	420 T	33.03	208
D Seamer (Irtton Pumping Station)	W. Millhouse, Esq. C.E.	8	1	0	94 A	24.75	191
Scarborough (Osgodby) .....	„ „	8	1	0	166 A	23.07	...
§ „ .....	Royal Meteorological Soc	5	1	0	101	22.60	178
D „ (Scalby) .....	Mrs. J. W. Rowntree...	5	0	11	300 B	26.55	179
D Bedale (Ivy Cottage, Fencote)...	Mr. W. Culverwell ...	5	1	6	125 T	24.83	175
Muker (Gunnerside Lodge) .....	W. M. Christy, Esq....	5	1	0	900 T	50.97	...
D Northallerton (Osmotherley) .....	T. Yeoman, Esq. ....	8	0	8	660	26.88	171
§ Rounton Grange .....	Royal Meteorological Soc	8	1	0	249	26.63	224
Richmond (Gilling West) .....	G. Roper, Esq. ....	5	1	3	303 T	28.59	150
Middleton Tyas .....	J. F. B. Baker, Esq. ...	...	...	...	375 T	26.64	...
Fylingdales (The Vicarage) .....	Rev. R. Jermyn Cooper	...	...	...	125	26.35	...
D Ingleby Manor .....	Lord De L'Isle .....	5	0	11	460 T	29.28	198
D „ Greenhow .....	Mr. P. Huntington ...	5	1	0	448 T	29.45	214
East Lavton Hall .....	Mrs. Proud .....	11	1	0	575 T	28.96	...
D Stanwick Park [Darlington] .....	Mr. W. Higgle .....	5	1	1	300 T	27.84	180
D Forcett Park [ „ ] .....	Capt. P. M. French ...	6	1	6	351 T	27.55	159
D Whitby (Park Hall, Aislaby) ...	Rev. J. H. Richardson..	5	1	0	500	29.75	217
D § „ (Royal Crescent) .....	T. Newbitt, Esq. ....	8	5	10	125	22.40	153
D Great Ayton (Easby Hall) .....	J. J. Emerson Esq., LL.D.	5	1	0	355	27.63	199
D Kildale Hall .....	R. B. Turton, Esq. ...	5	1	2	600 T	32.19	198
D Stokesley (Seamer) .....	J. Pounder, Esq. ....	5	1	4	250	26.33	172
D Whitby (Mulgrave Castle) .....	Mr. J. Corbett .....	5	1	0	410 T	28.60	196
D Guisborough (Lockwood Beck Res)	W. I'Anson, Esq., C.E.	8	1	0	632 A	29.81	194
„ ( „ „ ) M	„ „ „	8	...	...	632 A	29.65	...
D Middlesbrough (Ormesby) .....	Mr. W. Sanderson .....	5	1	0	100 T	26.35	177
D „ (Linthorpe) .....	Mrs. C. L. Bell .....	8	1	0	48 T	23.39	178
D „ (Albert Park) .....	J. M. Parnaby, Esq. ...	8	1	0	30	23.38	167
D Saltburn-by-the-Sea (Skelton Castle)	Mr. J. R. Batty .....	5	0	9	272 A	25.50	152
§ „ „	Messrs. Pearson Bros...	8	5	0	150	21.60	153
D + Hury Res. [Barnard Castle] .....	D. D. Wilson, Esq. ...	8	1	0	866 T	37.69	170
D + Grassholme Res. [Middleton] ...	„ „ „	8	1	0	936 A	42.33	200
+ Mickleton .....	Dr. H. R. Mill .....	8	1	0	850	30.64	...
+ „ (Lime Kiln Pasture) 1	„ „ „	8	1	0	1175 T	34.85	...

## DIVISION X.—NORTHERN COUNTIES.

DURHAM.

D	Darlington (Hurworth Grange).. Mrs. J. E. Backhouse...	5	1	0	161	11	25.86	192
D	,, (Cleveland Parade).. W. W. Willmott, Esq.	5	1	3	160	7	25.52	186



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

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain.	Days with $\geq 0.1$ or more recorded.
		Diameter	Height Above Ground.		Height Above Sea Level	1907
		in.	ft.	in.	feet.	inches.
<b>DURHAM—(con.)</b>						
Darlington (Hummersknott) ...	Mr. J. Short .....	5	1	0	200	25.69 ...
†Barnard Castle (County School)..	R. Hitchcock, Esq. ...	5	1	6	540	30.25 197
D Gainford .....	Walter Scott, Esq. ...	5	1	0	260	24.64 173
Stockton (Rimswell) .....	W. Anderson, Esq., C.E.	8	1	0	100	25.04 198
„ (Ropner Park) .....	M. H. Sykes, Esq. ....	5	1	9	61	23.02 163
D Hurworth Burn (Crookfoot).....	T. Bower, Esq., C.E. ...	10	1	6	293	25.30 203
West Hartlepool (Lynn Street)..	Mr. H. Lamb .....	5	65	0	84	17.04 168
„ „ (Water Works)	T. Bower, Esq., C.E. ...	10	1	0	35	28.26 ...
D „ „ (Bradgate).....	G. H. Baines, Esq. ....	8	1	3	100	27.32 180
D Hurworth Burn .....	T. Bower, Esq., C.E. ...	10	1	0	357	27.71 183
D Hartlepool (Hart Reservoir).....	„ „ „ „ .....	10	1	0	172	23.52 166
D Stanhope (Parson Byer's Quarry)	Messrs. Bell Bros., Ltd.	5	6	8	846	28.81 160
D Wearhead Station .....	Mr. R. Rust .....	5	0	6	1104	53.60 193
§ Durham Observatory .....	Meteorological Office ...	12	4	0	352	24.83 187
D § Ushaw (St. Cuthbert's College)..	Rev. Dr. C. Gelderd ...	5	0	9	600	28.09 217
D Weardale W.W. (Tunstall Res.)	R. Askwith, Esq., C.E.	8	1	2	724	31.16 162
„ „ (Waskerley 6)	„ „ „ „ .....	8	4	2	1229	29.13 ...
„ „ ( „ 3)	„ „ „ „ .....	8	4	6	1433	32.71 ...
„ „ ( „ 4)	„ „ „ „ .....	8	4	7	1321	29.41 ...
„ „ ( „ 5)	„ „ „ „ .....	8	4	2	1244	30.92 ...
D „ „ ( „ 2)	„ „ „ „ .....	8	0	11	1179	32.87 211
„ „ ( „ 1)	„ „ „ „ .....	8	4	5	1367	29.78 ...
„ „ (Smiddy Shaw)	„ „ „ „ .....	8	4	4	1317	28.95 ...
D „ „ (Seaham)	„ „ „ „ .....	8	1	3	1128	33.84 215
Seaham (Dalton Pumping Sta.)..	A. B. E. Blackburn, Esq.	8	1	0	345	24.04 179
Fence Houses (Chilton Moor) ...	V. W. Corbett, Esq. ...	5	1	4	186	25.67 ...
D Seaham Harbour .....	Mr. G. H. Aird .....	8	1	6	141	22.18 173
„ Hall .....	Mr. R. Draper .....	5	1	0	112	25.24 ...
Chester-le-Street (Biddick Hall)	Mr. A. Bentley .....	5	1	0	150	27.56 ...
Ryhope Pumping Station .....	A. B. E. Blackburn, Esq.	8	1	1	228	22.16 173
D Medomsley (Manor House) .....	H. Palmer, Esq. ....	5	1	0	746	25.78 187
D Burnopfield (Leazes Hall).....	H. F. Bulman, Esq. ...	5	1	0	585	29.01 189
D Sunderland (W. Hendon Ho.) No. 5	T. W. Backhouse, Esq.	5	1	0	130	23.53 180
„ „ „ „ „ No. 6	„ „ „ „ „ „	5	1	0	130	23.62 173?
D „ „ (Mowbray Park) .....	H. Renny, Esq., M.D. ...	5	1	0	105	24.01 194
„ „ (Claxheugh Grove) ...	J. P. Cornett, Esq. ....	5	2	6	90	25.11 ...
D „ „ (The Cedars) .....	W. F. Vint, Esq. ....	5	0	6	115	24.31 181
„ „ (Boldon Rectory).....	Rev. J. G. B. Knight...	5	0	9	100	24.66 154
„ „ (Cleaton Pumping Sta.)	A. B. E. Blackburn, Esq.	8	1	0	216	21.90 160
D Ryton-on-Tyne .....	J. P. Dalton, Esq. ....	5	1	0	258	25.65 192
D „ „ (Balgonie House)	J. W. Smith, Esq., M.D.	5	1	6	258	25.94 155
<b>NORTHUMBERLAND.</b>						
Haltwhistle (Bellister Castle) ...	J. M. Clark, Esq. ....	5	1	0	380	40.07 189
D Corbridge (Howden Dene) .....	J. H. Straker, Esq. ...	5	0	9	200	27.40 200
D Bardon Mill (Beltingham Vic.)..	Rev. H. C. Newbery ...	5	3	0	323	31.52 202
Newcastle (Lit. and Phil. Soc.)..	H. Richardson, Esq. ...	8	55	0	160	29.35 ...

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

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain. 1907	Days with $\geq 0.1$ or more recorded.
		Diameter	Height Above Ground.		Height Above Sea Level	
		in.	ft.	in.	feet.	inches.
NORTHUMBERLAND—(con.)						
§ Newcastle (Northumberland Rd.)	N. H. Martin, Esq. ...	8	45	0	200	25.18
d „ (Town Moor) .....	A. Wright, Esq. ....	5	2	0	201 $\nabla$	27.33
„ (Wellburn, Jesmond).	W. H. Holmes, Esq. ....	5	1	6	163 $\nabla$	25.26
§ North Shields (Dockwray Square)	Meteorological Office ...	8	1	4	117	24.87
d Tynemouth (Tyne Pier Works)..	J. Walker, Esq., C.E. ...	5	1	8	65 $\nabla$	26.11
Stamfordham Vicarage .....	Rev. G. Evans-Gwynne	5	0	6	422	26.95
Whittle Dean (Newcastle W.W.)	A. L. Forster, Esq., C.E.	5	0	6	380	26.02
„ „ Filters( „ „ )	„ „ „	5	1	1	353	26.70
Whittington ( „ „ )	„ „ „	8	0	9	528	27.78
Burnside ( „ „ )	„ „ „	5	0	9	419	25.49
N. Tyne (Green Crag)( „ „ )	„ „ „	5	1	6	896 $\nabla$	30.66
Ryal Cottage ( „ „ )	„ „ „	10	0	9	463	27.33
Hallington Village ( „ „ )	„ „ „	5	1	0	467 $\nabla$	28.97
„ Reservoirs( „ „ )	„ „ „	5	1	0	470	28.15
„ (Fawcett) ( „ „ )	„ „ „	5	1	2	537 $\nabla$	28.16
„ (Cheviot) ( „ „ )	„ „ „	5	1	2	576	27.53
Gunnerton Burn(Camphill)( „ „ )	„ „ „	5	1	1	650 $\nabla$	29.53
Colt Crag ( „ „ )	„ „ „	5	1	0	654	28.48
d Scots Gap (Wallington) .....	Mr. E. Keith .....	8	2	9	446 $\nabla$	32.15
d Angerton Hall .....	Mr. R. Elliott .....	5	1	0	320 $\nabla$	29.88
Morpeth .....	T. Matheson, Esq. ....	8	1	6	100	26.60
d „ (Bothalhaugh Garden)..	Hon. & Rev. W. C. Ellis	5	1	10	35	26.72
„ { „ „ „ } M	„ „ „ „	5	1	10	35	26.66
d „ { „ „ „ } M	„ „ „ „	5	1	10	137	25.69
„ { „ „ „ } M	„ „ „ „	5	1	10	135	26.68
Morpeth (Longhirst Hall).....	Hon. J. A. Joicey .....	7	1	0	168	25.18
d § „ (Cockle Park) .. .....	T. B. Hewetson, Esq. ...	8	1	0	325 $\nabla$	28.44
d Font Res. (Tynemouth W.W.)..	H. G. Coventry, Esq., C.E.	10	0	6	620 $\nabla$	31.22
Redpath ( „ „ ) ..	„ „ „	10	0	6	850 $\nabla$	32.41
Tod Crag ( „ „ ) ..	„ „ „	10	0	6	1000 $\nabla$	34.46
Fallowlees ( „ „ ) ..	„ „ „	10	0	6	850 $\nabla$	35.43
Chartners ( „ „ ) ..	„ „ „	10	0	6	1000 $\nabla$	33.60
Rothbury (Brinkburn Priory) ...	Mrs. Hugh Fenwick ...	8	1	2	257 $\nabla$	31.73
d § „ (Cragside).....	Lord Armstrong.....	8	1	0	405 $\nabla$	34.12
Redewater (Chattlehope) .....	A. L. Forster, Esq., C.E.	5	1	0	900	47.25
„ (Cateleugh) .....	„ „ „	5	1	0	819	42.69
Alwinton (Biddleston Hall) .....	P. Dodds, Esq. ....	5	1	0	820 $\nabla$	35.36
§ Alnwick Castle .....	Meteorological Office ...	5	0	4	178	27.83
d Glanton (Glanton Pyke Gardens)	Mr. J. Henderson .....	8	4	2	521 $\nabla$	31.61
d Howick Hall .....	Earl Grey .....	8	0	10	121 $\nabla$	28.28
Ilderton (Lilburn Tower) .....	A. B. Collingwood, Esq.	10	6	0	300 $\nabla$	29.08
d „ ( „ Cottage) .....	N. D. Cowans, Esq. ...	5	1	0	340 $\nabla$	31.21
Wooler (St. Ninians).....	Dr. R. Walker .....	8	0	10	176 $\nabla$	32.12
d „ (Fenton) .....	Hon. F. W. Lambton, MP	8	1	6	240	30.79
Bamburgh .....	Mr. R. W. Clark .....	5	1	0	75 $\nabla$	25.48
d Pawston [Coldstream] .....	B. P. Selby, Esq. ....	8	1	0	328 $\nabla$	31.70

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

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain. 1907	Days with .01 or more recorded.
		Diameter	Height Above Ground.		Height Above Sea Level	
		in.	ft.	in.	feet.	inches.
<b>NORTHUMBERLAND—(con.)</b>						
Beal (Barmoor Castle) .....	Dr. T. Hodgkin .....	8	3	6	400	30·51
d Holy Island (St. Aidan's).....	A. Wilson, Esq.....	5	1	0	30	22·31
<b>CUMBERLAND.</b>						
d Millom (Leyfield) .....	Cedric Vaughan, Esq. CE .....	5	1	2	81	52·21
Ravenglass (The Grove) .....	Miss C. Marshall .....	5	1	2	84	49·46
§ Eskdale Green (Gatehouse) .....	" " " " .....	5	0	10	215	67·31
d Beckfoot .....	Rev. T. W. Fair .....	5	1	0	180	75·50
d Seascale (Whinthwaite) .....	Dr. Hellon .....	5	1	0	52	43·48
d Gosforth (Bolton Hall).....	Col. J. R. Bain .....	5	1	8	135	62·12
d " (Ellerslie) .....	W. H. Kitchin, Esq....	5	1	0	185	57·54
Calder Abbey .....	T. H. Rymer, Esq.....	8	1	3	230	56·59
Styehead Tarn .....	M Dr. H. R. Mill .....	4	0	6	1472	148·45
The Stye B .....	M " " " " .....	4	1	0	1077	175·46
" C .....	M " " " " .....	4	1	0	1077	178·63
" D .....	M " " " " .....	4	1	0	1077	149·68
Borrowdale (Seathwaite) .....	M " " " " .....	4	0	6	422	129·26
d § " ( " ) weekly .....	" " " " .....	5	1	0	422	128·35
" ( " ) .....	Royal Meteorological Soc .....	5	1	0	423	128·81
" ( " ) .....	Miss C. Marshall .....	5	1	0	423	128·33
Ullscarf .....	M G. H. Hill, Esq., C.E..	7	1	8	2100	109·60
Cleator Moor Water Works .....	R. Robertson, Esq., C.E.	5	1	6	395	65·69
d Frizington (Parkside Mines) ...	Parkside Mining Co....	8	20	0	320	56·28
Helvellyn (Birkside) .....	M G. H. Hill, Esq., C.E..	7	1	3	1900	92·50
Wythburn .....	" " " " .....	7	1	4	580	83·30
d Buttermere (Hassness) .....	Mr. R. J. Carroll .....	5	1	0	355	103·01
Whitehaven (Hensingham Ho.)..	E. Lonsdale Nanson, Esq.	5	1	6	280	51·20
d Borrowdale (Grange) .....	Mr. J. Threlkeld .....	5	0	9	271	83·05
Armboth Fells (The Pewitts).....	G. H. Hill, Esq., C.E..	7	1	6	1650	83·30
Helvellyn (Whiteside) .....	" " " " .....	7	1	6	2100	81·30
Thirlmere (Dale Head Hall) ...	" " " " .....	7	1	5	620	73·70
d Whitehaven (Irish Street) .....	Dr. Welby P'Anson ...	5	1	1	21	54·34
Distington (Gilgarran) .....	Mr. A. Kydd .....	5	4	9	470	48·19
Ullswater (Hallsteads) .....	Miss C. Marshall .....	5	2	0	497	69·04
Keswick (Deer Close) .....	John Marshall, Esq. ...	7	1	9	300	57·99
" (Derwent Island) old g. ..	" " " " .....	5	0	7	280	56·57
" ( " ) new g. .....	" " " " .....	5	0	6	290	54·51
d " (York City & Co. Bank) .....	Mr. R. W. Mayson ...	5	1	6	265	55·44
d " (Shu-le-crow) .....	A. Mitchell Dawson, Esq.	5	0	7	296	54·69
d " (Crosthwaite School).....	Mr. H. Swinburn .....	5	1	0	254	52·88
d Cockermouth (Ullock) .....	J. H. Walker, Esq. ...	5	1	0	313	57·51
d Workington (Winscales) .....	Mrs. J. A. Trench .....	5	1	6	440	45·64
d Cockermouth (Whinfell Hall)...	Mrs. F. M. Peile .....	5	0	1	255	61·64
d " (Brandlingill).....	Mrs. Sewell .....	9	1	0	320	61·23
Camerton Vicarage .....	Rev. E. C. Bennett ...	5	1	0	200	40·57
Bassenthwaite (Mirehouse) .....	Miss Spedding .....	5	1	1	300	51·09
" (Higham) .....	Joseph Fisher, Esq.....	5	0	9	500	46·96

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

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain.	Days with 10 or more recorded.
		Diameter	Height Above Ground.	Height Above Sea Level	1907	
		in.	ft. in.	feet.	inches.	
<b>CUMBERLAND—(con.)</b>						
D Bassenthwaite (Bassenfell) .....	Mrs. S. G. Rathbone ...	8	1 0	384	44.31	204
D Cockermouth (Broughton Grange) .....	G. S. Wilson, Esq. ...	5	1 3	209 A	43.97	201
Hutton John .....	Rt. Hon. The Speaker, MP	5	0 11	700 T	50.45	222
Penrith (Nandana) .....	G. Varty-Smith, Esq. ...	5	1 0	650 T	35.85	269
„ (Fir Bank, Fell Lane) ..	T. Lester, Esq. ....	5	1 0	575 T	32.09	199
§ „ (Newton Rigg) .....	Meteorological Office ...	...	...	559	35.44	206
„ (Greystoke) .....	H. Walker, Esq. ....	5	1 3	650	43.67	...
D „ ( „ Belle Vue) ..	Miss E. A. Rowe ....	5	4 0	680 T	37.04	211
„ (Ennim) .....	Mrs. Hamlet Riley ...	8	0 6	660	40.82	202
„ (Inglewood) .....	H. F. Thompson, Esq. ..	5	1 0	550 T	36.55	202
D Bassenthwaite (Armathwaite Hall) ..	T. M. Hartley, Esq. ...	8	1 0	305	44.18	236
D Cockermouth (Isel Vicarage) ...	Rev. W. Vale Bagshawe	5	0 8	200	43.07	212
Maryport (Netherhall) .....	Mrs. H. P. Senhouse ...	5	0 6	27 A	45.05	178
§ Uldale (Chapel House Reservoir) ..	Meteorological Office ...	8	1 0	600	49.13	223
D Penrith (Nunwick Hall) .....	Mrs. Heywood Thompson	5	1 0	298 T	34.53	201
§ Aspatria .....	Meteorological Office ...	8	1 0	251	43.07	211
Wigton (Brookfield) .....	J. J. Jopling, Esq. ....	5	0 9	124 A	41.65	225
D Alston (Lowbyer Manor House) ..	J. R. Walton, Esq. ...	5	1 0	920	43.43	226
Wreay Vicarage .....	Rev. A. R. Hall .....	5	2 0	310 T	39.41	194
D Geltsdale .....	H. C. Marks, Esq., C.E.	5	1 2	924 A	36.02	216
Carlisle (Spital Cemetery) .....	J. Veitch, Esq. ....	8	4 0	114 A	36.49	211
„ (Rickerby) .....	Miles MacInnes, Esq. ..	8	1 2	52 T	31.83	...
D „ (Stanwix) .....	Sir Benjamin Scott ...	8	1 6	100 T	32.63	185
D „ (Newby Grange) .....	T. H. Hodgson, Esq. ...	5	0 8	64 A	30.49	190
§ „ (Scaleby Hall) .....	Royal Meteorological Soc	5	1 0	112	37.10	244
D Brampton (Denton House) .....	Miss B. Gardhouse .....	5	1 5	541 A	33.01	202
D Penton (Warwick's Land School) ..	W. Roden, Esq. ....	5	1 0	250 B	42.55	228
<b>WESTMORLAND.</b>						
Kirkby Lonsdale .....	J. R. Picard, Esq. ....	7	0 8	215 T	53.82	...
D „ „ (Casterton) .....	R. A. Clarke, Esq. ....	8	1 0	305	54.20	232
D „ „ (Barbon Manor) ..	A. Ford, Esq. ....	6	1 3	650 T	48.22	179
D „ „ ( „ ) .....	Miss Wilkinson .....	5	1 0	310 T	51.47	194
D Milnthorpe (Leasgill) .....	T. A. Argles, Esq. ....	5	0 8	130	47.91	224
D „ (Crosthwaite Vic.) ..	Rev. T. Heelis .....	5	1 0	160 A	60.63	211
D Kendal (Helm View) .....	W. R. Wilson, Esq., C.E.	5	1 0	138	55.87	183
D „ (Holmcroft) .....	R. Rhodes, Esq. ....	5	1 3	176 T	58.67	221
D „ (Ivy Garth) .....	R. J. Nelson, Esq. ....	5	1 6	146 T	54.93	207
„ (Ellergreen) .....	C. J. Cropper, Esq. ...	5	1 6	270 T	66.18	207
D Bowness (Lindeth Howe) .....	F. G. Senior, Esq. ....	5	1 0	250 T	68.70	213
D „ (Fallbarrow) .....	J. Leeming, Esq. ....	8	1 0	135 T	67.49	211
Windermere .....	Miss C. Marshall .....	5	1 0	290 A	64.80	222
D „ (Fellside) .....	T. D. Lingard, Esq. ...	5	0 6	310 A	66.96	221
D „ (Holebird) .....	W. G. Groves, Esq. ...	5	1 0	483 L	69.84	221
D „ (Brockhole) .....	W. Gaddum, Esq. ....	5	1 6	145	72.39	222
D Ravenstonedale .....	Rev. R. W. Metcalfe ...	5	1 2	800 T	52.19	205
D Ambleside (Skelwith Bridge) ...	A. J. Adams, Esq. ....	5	1 9	190 T	99.34	222



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

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain.	Days with $\geq 0.1$ or more recorded.	
		Diameter	Height Above Ground.		Height Above Sea Level		1907
		in.	ft.	in.	feet.	inches.	
MONMOUTH—(con.)							
D Tredunnoch .....	Rev. C. T. Salusbury...	5	2	3	170 $\nabla$	37.15	199
§ Newport (W. W., Newchurch)...	Meteorological Office...	5	1	0	496 $\nabla$	42.82	217
Abersychan (The Hawthorns)...	J. W. Mulligan, Esq., MD	5	1	0	755 $\nabla$	55.40	229
§ „ (Glansychan).....	Meteorological Office...	3	2	0	698	54.37	179
D Abertillery (Cwmtilerry) .....	W. Y. Hobkirk, Esq...	5	1	0	970 $\nabla$	63.40	193
D Tredegar (The Willows) .....	G. A. Brown, Esq., M.D.	8	1	0	1024 $\nabla$	58.68	205
D Ebbw Vale (Iron Works) .....	F. Mills, Esq.....	8	1	0	902 $\nabla$	56.70	218
D Monmouth (The Hendre) .....	Mr. T. Coomber .....	8	1	0	176 $\nabla$	33.42	200
Abergavenny (Larchfield) .....	Dr. J. Glendinning ...	5	1	0	240 $\nabla$	35.34	202
„ (Dyne House) .....	Dr. S. H. Steel .....	5	1	5	220 $\nabla$	37.87	216
D† „ (The Chain).....	W. Baker Gabb, Esq...	5	1	3	300	36.95	197
D Monmouth (Pentwyn) .....	Rev. Canon Harding...	5	1	0	191 $\nabla$	34.90	199
D Llantilio Court .....	Sir H. Mather-Jackson Bt	5	0	11	207	33.54	167
D Pandy (Trewyn).....	P. B. Barneby, Esq. ...	8	1	0	444 $\nabla$	42.83	175
D† Grwyne Fawr (Coed Dias) .....	W. Baker Gabb, Esq...	5	1	0	1000 ?	53.77	235
D† „ „ (Ffwydd Fwthog)	Baldwin Latham, Esq CE	5	0	8	1380 $\nabla$	45.17?	226
D† Llanthony Abbey .....	„ „ „	5	1	0	792 $\nabla$	50.88	225
GLAMORGAN.							
D Barry (Canon Street) .....	E. W. Waite, Esq., C.E.	5	1	0	97	33.87	209
Cowbridge (Fonmon Castle).....	O. H. Jones, Esq. ....	8	1	2	130	34.32	190
D Barry W. W. (Biglis) .....	E. W. Waite, Esq., C.E.	5	1	0	20 $\nabla$	33.73	205
„ „ (Merthyr Dofan)...	„ „ „	5	1	0	300 $\nabla$	38.45	...
„ „ (Pencoedtre) .....	„ „ „	5	1	0	200 $\nabla$	39.30	...
D „ „ (Dinas Powis Res.)	„ „ „	5	1	0	165 $\nabla$	36.38	203
D Lower Penarth .....	E. I. Evans, Esq., C.E.	5	1	0	67 $\nabla$	37.64	261
D Penarth .....	„ „ „	5	5	0	160 $\nabla$	37.11	217
Cardiff (Cogan Pill, Llandough).	C. H. Priestley, Esq. C.E.	5	1	0	121 $\nabla$	38.64	204
„ (Trade Street) .....	„ „ „	5	1	0	45	40.06	221
D „ (Roath Park) .....	E. Walford, Esq., M.D.	5	1	0	50	43.10	232
D „ (Ely) .....	C. H. Priestley, Esq. C.E.	5	1	0	53 $\nabla$	42.32	228
D Porthcawl .....	R. W. Jones, Esq.....	8	1	0	44 $\nabla$	35.08	222
D Llandaff (Howell's School) .....	Miss A. G. Winny.....	5	1	4	86 $\nabla$	40.78	218
Cardiff (New Filters, Heath) ....	C. H. Priestley, Esq. C.E.	5	1	0	132	42.96	219
„ (Llanishen Reservoir) ...	„ „ „	5	1	0	155	42.57	225
D „ (Lisvane Reservoir) .....	„ „ „	5	1	0	150	40.88	225
Cowbridge (Ash Hall) .....	E. Tudor Owen, Esq...	8	3	0	315 $\nabla$	44.65	213
D Llantrisant (Talgarn) .....	G. L. Clark, Esq. ....	5	4	3	250	55.12	225
D Oystermouth (Newton) .....	Rev. Secretan Jones ...	5	0	9	279 $\nabla$	43.88	230
D Mumbles (Bristol Ch. Yacht Club)	F. W. Harrison, Esq...	5	1	0	20	42.28	222
D§ Port Talbot (Twyn-yr-hydd, Margam)	G. Lipscomb, Esq.....	5	1	0	180 $\nabla$	42.77	218
D Gilfach Goch (Gilfach House) ..	W. W. Hood, Esq. ...	8	3	0	701 $\nabla$	62.64	198
Pontypridd (Maesderwen, Graig)	T. Bowen, Esq. ....	5	10	0	425 $\nabla$	60.83	220
D „ (The Reservoir) .....	W. Jones, Esq. ....	5	1	0	300	58.90	223
Porth (Cemetery Road).....	D. Hawkins, Esq. ....	5	1	6	500 $\nabla$	73.65	...
D Caerphilly (Ystrad Mynach) ...	Lt.-Col. M. Lindsay ...	8	0	5	315 $\nabla$	51.59	208
D Swansea (Le Mayals) .....	J. E. Stevens, Esq. ...	8	1	2	220 $\nabla$	51.03	184

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

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain.	Days with '01 or more recorded.
		Diameter	Height Above Ground.	Height Above Sea Level	1907	
		in.	ft. in.	feet.	inches.	
<b>GLAMORGAN—(con.)</b>						
D Swansea (New Dock Works) ...	R.S. Oldham, Esq., C.E.	5	4 9	31 $\nabla$	39·72	239
D „ Harbour .....	A.O. Shenck, Esq., C.E.	12	14 9	46	49·28	216
D „ (Killay House) .....	M. B. Williams, Esq. ...	5	0 6	265 $\nabla$	49·07	222
D „ (The Knoll).....	E. H. Perkins, Esq. ...	8	1 0	150 $\nabla$	48·80	234
D „ (Glanmor Crescent) ...	late T. Travers Wood Esq.	5	1 0	235 $\nabla$	47·29	220
D† Llwynypia (Glyncornel) .....	W. W. Hood, Esq. ...	8	3 3	494 $\nabla$	76·16	207
Briton Ferry (Baglan House) ...	A. T. Williams, Esq. ...	5	2 6	150	47·14	...
D „ „ (Brynsiriol).....	H. A. Clarke, Esq. ...	5	1 0	33 $\nabla$	46·34	204
Morriston (Glanravan) .....	Ll. J. Naysmith, Esq. ...	5	1 0	53 $\nabla$	50·47	206
D† Ystradyfodwg (Fever Hospital)..	J. D. Jenkins, Esq., M.D.	5	1 0	590 $\nabla$	68·50	213
D Neath .....	E. C. Pole, Esq. ....	5	1 0	204 $\nabla$	53·23	225
„ (Fairy Land) .....	Major E. Ll. Green ...	5	1 9	175 $\nabla$	47·53	233
Rhondda (Ferndale) .....	G. Childs, Esq. ....	5	1 0	830 $\nabla$	69·15	...
D Glyncoirwg .....	Messrs. F. Brown & Rees	5	4 6	717 $\nabla$	94·41	213
D Mountain Ash (Maesydderwen)..	M. Morgan, Esq. ....	5	1 0	483 $\nabla$	54·97	225
D „ „ (Darranlas Res.)..	W. G. Thomas, Esq. ...	5	0 11	540	61·72	223
„ „ (Clydach Res.) ...	„ „ „ „ „ „ „ „	5	1 0	930	76·36	231
D† Treherbert (Bute Colliery) .....	Sir W. T. Lewis, Bart. ...	5	1 0	670	81·71	228
D† „ (Tyn-y-waun).....	O. Thomas, Esq. ....	5	1 0	801	84·02	241
† „ „ „ „ „ „ „ „	M „ „ „ „ „ „ „	5	1 0	801	86·27	...
D Gorseion (Penllergaer).....	Sir J. T. D. Llewelyn, Bt.	5	3 0	240 $\nabla$	51·45	218
D Cwmaman Colliery .....	W. J. Heppell, Esq. ...	5	2 2	930 $\nabla$	70·14	224
D† Rhondda (Pont Lluest Wen Res.)	W. Jones, Esq. ....	5	1 0	1225	60·74	160
D Aberdare (The Mardy) .....	Sir W. T. Lewis, Bart. ..	5	2 0	431 $\nabla$	50·96	225
D „ (Abernant).....	Evan Jones, Esq. ....	5	1 6	430 $\nabla$	52·01	159
D Felindre (Lliw Reservoir).....	R. H. Wyrill, Esq., C.E.	8	1 3	426 $\nabla$	56·01	231
D Dowlais (Gwernllwyn) .....	R. C. Harrison, Esq. ...	5	1 6	1071 $\nabla$	52·50	219
D Ystalyfera (Wern School) .....	Mr. J. Williams.....	5	1 3	240 $\nabla$	66·47	216
<b>CARMARTHEN.</b>						
D Llanelly (Old Market Yard) ...	G. Watkeys, Esq., C.E.	5	10 0	35 $\nabla$	44·85	219
D „ (Cwmlledi W.W.).....	„ „ „ „ „ „ „ „	5	3 0	240 $\nabla$	54·77	243
D Llanddarog (Lletherllestry).....	late Rev. H. L. Puxley	4	1 0	250 $\nabla$	51·29	209
D Carmarthen (The Friary).....	L. M. Bowen-Jones, Esq.	5	1 5	62 $\nabla$	47·70	231
† Llandilo (Golden Grove Gardens)	The Earl Cawdor .....	6	1 6	125 $\nabla$	58·04	191
D „ (Cae-glas) .....	J. Lewes Thomas, Esq.	5	3 0	190 $\nabla$	55·55	256
† „ (Dynevor Castle) .....	Lord Dynevor .....	8	1 0	202 $\nabla$	56·26	248
§ Llandovery .....	Douglas T. M. Jones, Esq.	5	1 0	249 $\nabla$	52·37	217
D Llanwrda (Dolaucothy).....	Gen. Sir J. Hills-Johnes	5	2 6	498 $\nabla$	57·26	248
<b>PEMBROKE.</b>						
Pembroke (Stackpole Court).....	The Earl Cawdor .....	6	1 6	60 $\nabla$	39·13	206
Tenby (Bryn Hyfryd) .....	J. F. J. Burgess, Esq. ..	5	1 0	...	41·82	...
§ St. Ann's Head .....	Meteorological Office ...	8	0 8	150	37·20	223
D Pembroke Dock (County School)	G. H. West, Esq. ....	5	1 0	85	40·65	214
D Saundersfoot (Hean Castle) .....	Herbert C. Lewis, Esq.	5	2 5	206 $\nabla$	33·30	184
Haverfordwest (Picton Castle)...	Sir C. E. G. Philipps, Bt.	5	0 10	138	46·11	217

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

STATIONS.	AUTHORITIES.	Rain Gauge.				Depth of Rain.	Days with '01 or more recorded.
		Diameter	Height Above Ground.		Height Above Sea Level	1907	
		in.	ft.	in.	feet.	inches.	
BRECON—(con.)							
†Taff Fechan (Neuadd Res.) No. 9M	T. F. Harvey, Esq., C.E.	5	1	0	1997	57.63	...
† „ „ „ „ „ „ No. 6M	„ „ „ „ „ „	5	1	0	2099	92.43	...
Crickhowell (Glanusk Park).....	Lord Glanusk.....	5	1	0	290	42.41	179
D „ „ (Gwernvale) .....	E. Pirie Gordon, Esq....	5	1	0	393	40.25	215
„ „ „ (Penmyarth) .....	S. H. Cowper Coles, Esq..	5	1	0	330	37.25	234
D Bwlch (Buckland Gardens) .....	Mr. A. J. Keen .....	5	1	0	486	43.19	183
†Talybont (Cui) .....	H. Jones Williams, Esq..	5	1	0	490	45.05	...
D†Brecon (New Inn) .....	Mr. W. Williams .....	5	1	0	810	55.54	200
†Cray Station .....	Mr. J. Jones .....	5	1	0	930	57.60	...
†Crickhowell (Cwmdu) .....	Mr. J. P. Edwards.....	5	1	0	430	36.70	...
† „ „ (Ffordlas Farm) M	Mr. S. A. Gore .....	5	1	0	1170	50.00	...
†Cathedine Rectory.....	Rev. J. S. Jones.....	5	1	0	660	33.09	...
D†Llanfrynach (Tymawr).....	Col. Garnons Williams..	5	1	0	450	41.08	217
†Crickhowell (Tal-y-maes)..... M	Dr. H. R. Mill .....	5	1	0	1250	50.60	...
†Trecastle (Blaenau-hydfer) ... M	„ „ „ „ .....	5	1	0	1070	64.70	...
D Talgarth (Bell Street) .....	F. J. Morgan, Esq.....	5	10	9	421	36.64	188
D†Llanfihangel Nant-Bran (Cwmcynog)	Dr. H. R. Mill .....	5	1	0	790	48.63	230
†Lower Chapel (Nant-y-groes) M	„ „ „ „ .....	5	1	0	1080	42.20	...
†Merthyr-Cynog .....	Mr. W. Davies .....	5	1	0	1050	50.70	...
§ Hay (Gwernyfed Park).....	Major T. Wood .....	5	1	6	375	35.56	202
†Upper Chapel (Tymawr) .....	Mrs. Probert .....	5	1	0	945	44.83	...
Llanwrtyd Wells (Llandulas) M	Mr. W. Price .....	5	1	0	790	50.20	...
D†Llangammarch Wells .....	Dr. W. Black Jones ...	8	1	0	551	48.92	236
D Builth (Tyn-y-berllan).....	Dr. Baldock Fry .....	5	1	0	430	36.05	178
†Abergwesyn (Caewain)..... M	Rev. T. Jones.....	5	1	0	1010	59.55	...
† „ „ (Llanerch-yrfa) M	Dr. H. R. Mill .....	5	1	0	1430	62.25	...
Pen-graig [Newbridge]..... M	„ „ „ „ .....	5	1	0	960	53.00	...
Llysdyham [ „ „ ].....	late Mrs. Lister Venables	5	1	3	640	41.94	240
RADNOR.							
Welfield [Builth] .....	E. A. Thomas, Esq. ...	5	2	0	740	39.75	...
New Radnor (Glascwm) .....	M Mr. G. Bufton .....	5	1	0	957	41.05	...
Builth Road (St. John's Vicarage)	Rev. J. L. Bryans .....	5	0	11	550	38.30	225
D Bettws Disserth.....	Dr. H. R. Mill .....	5	1	0	850	38.52	184
§ Llandrindod Wells (Kimberley)..	Meteorological Office ...	5	1	0	699	37.18	238
D New Radnor (Ednol).....	Mr. W. Jones.....	5	1	0	950	46.28	210
Radnor Forest (Glaslwyn).....	H. Langston, Esq.....	5	1	6	2170	49.72	...
Rhayader (Nant-y-car) .....	M E. Antony Lees, Esq...	5	1	0	1545	72.00	...
D „ „ (Tyrmynydd) .....	„ „ „ „ .....	5	1	0	832	48.02	231
„ „ (Bwlchyrendre) ... M	„ „ „ „ .....	5	1	0	1585	63.00	...
D „ „ (Claerwen) .....	„ „ „ „ .....	5	1	0	1250	60.15	210
„ „ Vicarage .....	Rev. L. H. Evans .....	5	1	0	720	47.96	192
„ „ (Pryddellau) .....	M E. Antony Lees, Esq...	5	1	0	1710	61.60	...
D „ „ (Abergwyngy).....	„ „ „ „ .....	5	1	0	1200	64.40	223
Llanbister (Llananno) .....	Dr. H. R. Mill .....	5	1	0	900	47.70	...

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

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain.	Days with $\frac{1}{10}$ or more recorded.	
		Diameter	Height Above Ground.		Height Above Sea Level		1907
		in.	ft.	in.	feet.	inches.	
MONTGOMERY.							
D Llangurig (Dernol) .....	Dr. H. R. Mill .....	5	1	0	850	53·56	192
„ (Esgair Clochfan) ...	„ „ „ .....	5	1	2	1330	48·60	...
„ -on-the-Hill .....	„ „ „ .....	5	1	2	1330	50·60	...
„ (Ystrad-olwyn-fawr) M	„ „ „ .....	8	1	0	950	48·20	...
„ „ „ „ „ M	„ „ „ .....	5	1	0	950	48·80	...
D Llandinam (Plas Dinam) .....	Mr. D. Bowen .....	5	4	0	504 T	41·99	207
D Newtown (Dolfor) ...	W. B. Pugh, Esq. ....	5	2	6	1027	35·72	208
„ (Gregynog) .....	Lord Joicey .....	5	1	0	660 T	43·37	221
D Welshpool (Leighton Hall) .....	Mrs. Naylor .....	5	1	0	400 T	36·97	218
Garthbibio (Bwlch Tomlyd) ... M	Dr. H. R. Mill .....	5	1	0	1370 T	84·00	...
D Meifod (Coed-y-Maen) .....	A W Williams Wynn Esq	5	1	7	280	34·07	163
D Lake Vyrnwy .....	E. D. Marten, Esq. C.E.	5	0	7	770 T	57·04	218
„ „ (Bryn Gwyn) .....	J. Parry, Esq., C.E. ...	8	1	0	1311 T	55·25	...
D „ „ (Cynon Isaf) .....	„ „ „ .....	8	1	0	750 T	55·48	217
„ „ (Ty Uchaf) .....	„ „ „ .....	8	1	0	860 T	51·29	...
„ „ (Heol-y-ffridd) No.1	„ „ „ .....	8	1	0	912 T	70·69	...
„ „ „ „ „ No.2	„ „ „ .....	8	1	0	912 T	66·57	...
„ „ (Tynyffridd) .....	„ „ „ .....	8	1	0	1010 T	48·83	...
„ „ (Lluestwen) .....	„ „ „ .....	8	1	0	1667 T	67·64	...
„ „ (Llwynrhiw) .....	„ „ „ .....	8	1	0	1428 T	74·68	...
„ „ (Craig-y-Gribbin) ..	„ „ „ .....	8	1	0	1100 T	57·29	...
„ „ (Eunant Bridge) ..	„ „ „ .....	8	1	0	830 T	69·24	...
„ „ (Carreg Goch) .....	„ „ „ .....	8	1	0	1750 T	69·88	...
„ „ (Fawnog) .....	„ „ „ .....	8	1	0	1315 T	52·48	...
FLINT.							
Cilcain .....	W. Simmons, Esq. ....	5	1	0	790 T	33·10	230
Hawarden .....	Great Central Rly. Co..	9	3	6	35	25·22	204
Flint (Soughton Hall, Northop).	John E. Banks, Esq. ...	5	1	0	418	29·82	222
D „ (Highfield, „ )	Rev. Canon Atkinson ...	5	1	0	400	27·89	179
„ (Plas Evan, „ )	John Astbury, Esq. ...	5	5	3	350 T	33·63	...
† Bodfari (Nantlys) .....	P. P. Pennant, Esq. ...	5	1	0	173 T	26·51	206
D† „ (Henblas) .....	Mrs. Scott Banks .....	5	1	0	283 T	29·21	215
D St. Asaph (St. Beuno's College).	St. Beuno's College ...	9	0	8	490 T	27·53	203
Bagillt (Lead Works) .....	Walkers, Parker & Co.	5	1	0	20	21·97	...
D Rhyl (Sewage Works) .....	Mr. J. Jones .....	8	1	0	31 T	24·29	211
D Prestatyn (Edlestone House) ...	T. J. Scott, Esq. ....	5	0	6	30	25·05	166
DENBIGH.							
D Llangadwaladr (Penygwely Res.)	G. W. Lacey, Esq., C.E.	5	1	0	1094	39·91	215
Glynceiriog .....	F. E. Rooper, Esq. ....	5	1	6	750 T	44·77	...
D Cerrig-y-Druidion (Garthmeilio)	Col. S. Parr Lynes. ....	5	1	0	930	41·49	198
D† „ „ „ (Bwlch-y-beudy)	Col. C. S. Mainwaring..	5	1	0	1050 T	41·07	212
Wrexham (Pack Saddle Res.) ...	F. Storr, Esq. ...	5	0	9	370 T	32·61	192
„ (Cae Llwyd Res.) ...	„ „ „ .....	5	0	9	918 T	33·86	211
D „ (Broughton) .....	J. Hall, Esq. ....	5	1	0	500 T	30·37	216

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

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain.	Days with .01 or more recorded.
		Diameter	Height Above Ground.	Height Above Sea Level	1907	
		in.	ft. in.	feet.	inches.	
<b>DENBIGH—(con.)</b>						
Wrexham (Gwersyllt) .....	S. H. V. Simmons, Esq.	5	1 0	283 $\pi$	26.77	...
Gresford (Trewythen) .....	Miss Howell Evans ...	5	1 0	350	28.66	209
D Cyffylliog (Fachlwyd Hall) .....	Elliott S. Currey, Esq...	5	1 0	640 $\uparrow$	34.80	234
D Ruthin (Llanbedr Hall) .....	Dr. G. A. Crace-Calvert	5	1 0	450 $\uparrow$	28.67	212
†Cerrig-y-Druidion (Hafod-llan-isaf)	G. F. Deacon, Esq., C.E.	5	1 2	1200	39.57	...
D†Pentre Voelas (Nant Heilyn) ...	„ „ „	5	1 0	1225	47.46	228
D†Cerrig-y-Druidion (Hafod-yr-Onen)	„ „ „	5	1 0	1175	39.59	227
†Nantglyn (Pant-y-maen) .....	M W. Barker, Esq. ....	8	1 0	1320 $\uparrow$	42.02	...
†Llyn Bran .....	M „ „ „	8	1 0	1428 $\pi$	48.32	...
D†Llanrwst .....	Rev. J. I. Farr .....	5	1 4	55 $\pi$	43.08	234
D†Llangerniew (Hafodunos) .....	Col. Sandbach .....	5	3 0	512 $\uparrow$	37.04	212
Llanefydd (Rhyl W.W., S.)...M	L. G. Hall, Esq., C.E..	5	1 0	600	25.89	...
„ ( „ „ W.)...M	„ „ „	5	1 0	580	20.96	...
„ ( „ „ E.)...M	„ „ „	5	1 0	570	21.69	...
D „ (Plas Uchaf Res.) ...	„ „ „	5	1 0	485	24.73	189
D „ (Glascoed Reservoir)..	„ „ „	5	1 0	360	26.34	202
D Llangyhanfal (Plas Draw) .....	Col. C. J. Bromhead, C.B.	5	1 0	419 $\pi$	29.63	241
D†Denbigh (Asylum) .....	W. Barker, Esq. ....	5	0 10	316 $\pi$	27.17	195
D „ (Garn) .....	W. D. W. Griffith, Esq.	5	1 0	447 $\uparrow$	29.37	208
„ (Gallt-faenan) .....	Col. C. S. Mainwaring.	5	1 0	400	29.43	...
Trefnant (Maes Elwy) .....	Major R. F. Birch..	5	2 0	190 $\uparrow$	27.44	164
D Tal-y-cafn (Bodnant Hall) .....	Mr. J. Saunderson .....	8	1 6	120	33.08	193
D Colwyn Bay (Four Crosses) .....	W. Jones, Esq., C.E....	5	1 0	400 $\pi$	23.99	194
D „ „ (East Parade) .....	„ „ „	5	1 3	65 $\pi$	22.23	185
<b>MERIONETH.</b>						
D†Towyn (Gothic House) .....	Dr. E. Lewys-Lloyd ...	5	1 0	11 $\pi$	40.46	230
D „ (Peniarth) .....	W. R. M. Wynne, Esq.	9	1 0	25	48.53	196
Dolgelly (Dr. Williams' School).	Miss Tootal .....	5	2 0	...	46.64	185
D „ (Bryntirion) .....	C. G. Beale, Esq. ....	5	0 10	50	55.40	209
D†Bala (Eryl Aran) .....	Mrs. Burton .....	8	1 0	600 $\uparrow$	57.74	227
§Aberdovey .....	Meteorological Office ...	...	...	...	40.98	221
D†Llanderfel (Palé Gardens) .....	Mr. E. J. Edwards ...	8	1 0	606 $\pi$	45.09	216
D Tan-y-bwlch (The Gardens) ...	Mr. J. Roberts .....	5	1 0	50 ?	62.43	220
Blaenau Festiniog (Oakley Quarries)	Owen Jones, Esq. ....	5	10 0	1100	95.69	...
Corwen (Rûg Gardens) .....	Mr. J. S. Higgins .....	5	1 4	500	34.71	201
<b>CARNARVON.</b>						
[Bardsey Island] .....	Hon. F. G. Wynn .....	5	1 0	50 ?	32.40	...
D†Criccieth (Talarvor) .....	Dr. J. Roberts .....	5	2 0	49 $\uparrow$	32.34	179
D† „ (Cefn-Maen) .....	Mr. F. Murchie .....	8	1 0	220 $\uparrow$	42.65	169
Pwllheli (Bodfean Hall) .....	Hon. F. G. Wynn .....	5	1 0	100 $\uparrow$	39.76	...
D†Portmadoc (Wern Gardens) .....	R. M. Greaves, Esq. ....	5	1 0	90 ?	58.66	164
†Beddgelert (Moel Hebog) .....	Mr. Griffith Williams..	5	1 0	1500	112.50	...
†Llandwrog (Glynllivon Park) ...	Hon. F. G. Wynn.....	5	1 0	100 $\uparrow$	39.50	...
† „ ( „ Nursery) .....	„ „ „	5	1 0	180 $\uparrow$	45.39	...

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

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain. 1907	Days with .01 or more recorded.
		Diameter	Height Above Ground.	Height Above Sea Level		
		in.	ft. in.	feet.	inches.	
CARNARVON—(con.)						
+Llandwrog (Glynllivon Garden).	Hon. F. G. Wynn .....	5	1 0	100 T	39.51	...
+ " " (Fort) .....	" " " " .....	5	1 0	180 T	35.45	...
Snowdon (Llyn Llydaw Intake) ..	G.C. Aitchison, Esq. C.E. ....	5	0 11	1476 T	154.34	...
" " " " (Copper Mine) ..	" " " " .....	5	1 0	1490 T	196.16	...
+ Bettws-y-Coed (Tyn-y-bryn) ...	Dr. Hugh W. Fox .....	8	2 6	153 T	45.92	227
+ Lake Cowlyd .....	T.B. Farrington Esq. CE .....	8	1 3	1168 T	67.53	...
Carnarvon (Belan Fort) .....	Hon. F. G. Wynn .....	5	1 0	12 T	30.10	...
Eigiau, Upper .....	No. 15 J. R. Gethin Jones, Esq. ....	5	1 0	2000	104.50	...
" Lake .....	No. 3 " " " " .....	5	1 0	1650	96.00	...
+ Lake Cowlyd (Upper Brwynog) No. 16	" " " " .....	5	1 0	1100	61.71	...
+ " " (Lower " ) No. 18	" " " " .....	5	1 0	1000	56.24	...
Frith Rhos .....	No. 17 " " " " .....	5	1 0	1100	59.81	...
Llanbedr-y-Cennin (Plasdulyn).	E.P. Stephenson Esq. CE .....	8	1 0	509 T	47.51	...
" " " " (Llyndulyn) ..	" " " " .....	8	1 6	1632 T	90.91	...
D Bethesda (St. Ann's Vicarage) ..	Rev. W. Morgan .....	5	1 6	500	51.59	230
§ " (Penrhyn Quarry) .....	Meteorological Office ...	8	1 0	528	50.57	187
D Bangor (Penrhyn Castle Gdns.) ..	Mr. W. Speed .....	5	1 0	150 T	37.06	187
D Llanfairfechan .....	Mr. W. Timmins .....	5	1 0	144	34.32	196
Penmaenmawr (Mountain Res.) ..	R. J. Hughes, Esq. ...	5	1 6	1200 T	41.58	...
" " (Council Offices) ..	" " " " .....	5	1 6	100 T	34.59	194
D Conway (Bodlondeb) .....	Mr. J. Tindall .....	5	1 3	40	29.51	182
Deganwy (Y Berlfa) .....	(R) Willoughby Gardner Esq .....	8	1 0	30 T	25.83	...
+ Llandudno .....	W. Little, Esq. ....	5	1 0	72 T	26.31	203
ANGLESEY.						
Llanddwyn Island .....	Hon. F. G. Wynn .....	5	1 0	40 T	30.60	...
+ Llangadwaladr (Bodorgan) .....	Mr. W. Pilgrim .....	8	1 0	100 ?	39.78	183
Llangwilog (Trescawen) .....	J. H. Pritchard-Rayner, Esq. ....	5	1 0	239 T	45.93	215
+ Holyhead (Sailors' Home) .....	Meteorological Office ...	8	1 0	48	39.14	205
Bodedern (Pressaddfed) .....	Major W. A. Fox-Pitt. ....	4	1 0	150 T	44.17	...
Llantrisant Rectory .....	Rev. Daniel Morgan ...	5	1 6	320	39.65	194
§ Llanerchymedd Llwydiarth Esgob	T. Prichard, Esq. ....	5	1 0	175 L	39.43	220
D Lligwy .....	Lord Boston .....	5	1 0	170	35.38	189
ISLE OF MAN.						
Castletown (Langness) .....	Bd. of Northern Lights .....	8	1 0	75	30.58	150
" (Derbyhaven) .....	A.W. Moore, Esq. C.V.O. ....	5	0 10	10	34.85	...
Santon Vicarage .....	" " " " .....	5	0 10	250	28.54	...
D Douglas (Woodville) .....	H. Story, Esq. ....	8	1 0	160 L	42.00	210
" (Cronkbourne) .....	A.W. Moore, Esq. C.V.O. ....	8	0 10	138 T	43.99	210
" (Clypse, Onchan) .....	" " " " .....	8	1 0	450	45.38	...
" (Baldwin) .....	" " " " .....	8	1 0	120	52.72	...
Bishops Court .....	" " " " .....	5	0 10	80	42.58	...
Ramsey .....	" " " " .....	8	1 3	18	36.89	196
Point of Ayre .....	Bd. of Northern Lights .....	3	4 6	116	28.24	...

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

STATIONS.	AUTHORITIES.	Rain Gauge.				Depth of Rain.	Days with .01 or more recorded.
		Diameter	Height Above Ground.		Height Above Sea Level	1907	
		in.	ft.	in.	feet.	inches.	
ISLES OF SCILLY.							
§ St. Mary's .....	Meteorological Office ...	8	1	6	20 1	29·26	211
d Tresco Abbey .....	T.A.DorrienSmith, Esq.	11	3	0	40	29·42	212
JERSEY.							
d St. Helier (St.LouisObservatory)	Rev. M. Dechevrens ...	8	5	0	180	25·38	171
§ St. Aubins . . . . .	Meteorological Office ...	8	1	9	36	28·63	201
„ (Belle Vue) .....	Miss M. M. Sumner ...	5	0	10	220	30·27	166
GUERNSEY.							
d St. Martins (Les Blanchés) .....	B. T. Rowswell, Esq....	5	1	0	310 7	32·49	206
d St. Peter Port (St. Martin's Road)	A. Collenette, Esq. ...	5	1	0	295 1	34·00	192
d§ „ „ (Villa Carey) .....	Dr. F. E. Carey ...	8	1	6	180	31·53	190
d L'Ancrese (Les Mielles) .....	J. S. Hocart, Esq. ....	5	1	0	33 7	31·00	182
ALDERNEY.							
d Le Huret.....	B. T. Rowswell, Esq...	5	1	0	245	28·84	188
SARK.							
d Vallée du Creux .....	B. T. Rowswell, Esq....	5	1	0	320	26·15	178

SCOTLAND.

DIVISION XII.—SOUTHERN COUNTIES.

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain.	Days with 40 or more recorded.
		Diameter	Height Above Ground.		Height Above Sea Level	1907
		in.	ft.	in.	feet.	inches.
WIGTOWN.						
Mull of Galloway .....	Bd. of Northern Lights ...	...	...	...	327	31·34
<sup>D</sup> Whithorn .....	Dr. J. F. Smith .....	5	2	3	207 $\nabla$	52·26
<sup>D</sup> „ (Cutroach) .....	J. G. Martin, Esq. ....	5	0	6	120 $\nabla$	45·76
Port William (Blairbuie) .....	Hugh McMaster, Esq. ...	5	2	6	150 $\nabla$	47·61
<sup>D</sup> Garliestown (Galloway Ho.) .....	Mr. J. Day .....	5	4	6	20 ?	46·05
<sup>D</sup> Stoneykirk (Ardwell House) .....	Sir M. J. Stewart, Bart. ...	8	3	9	107 $\nabla$	43·93
Port Patrick (Killantringan) ...	Bd. of Northern Lights ...	...	...	...	162	54·29
Loch Ryan Lighthouse .....	„ „ „ .....	...	...	...	46	41·15
Corsewall .....	„ „ „ .....	...	3	4	112	37·95?
KIRKCUDBRIGHT.						
Little Ross .....	Bd. of Northern Lights ...	...	3	3	175	35·65
Kirkcudbright (Balmae) .....	The Countess of Selkirk ...	5	0	8	150 $\nabla$	46·08
Auchencairn (Torr House) .....	W. Ovens, Esq. ....	5	0	8	50	58·47
<sup>§</sup> Gatehouse (Cally) .....	Scot. Meteorological Soc. ...	5	1	0	120	46·96?
<sup>D</sup> Dalbeattie (Kirkennan) .....	Wellwood Maxwell, Esq. ...	5	0	9	30 $\nabla$	54·55
<sup>D</sup> „ (Little Richorn) .....	Mr. W. Kerr .....	5	0	9	35 $\nabla$	49·09
Creetown (Cassencary) .....	J. A. Henryson-Caird, Esq. ...	5	0	8	50	48·08
<sup>D</sup> Kirkpatrick Durham (Glenlair) ..	Major W. Maxwell ...	5	0	6	250 $\nabla$	56·44
<sup>D</sup> <sup>§</sup> Cargen [Dumfries] .....	R. F. Dudgeon, Esq. ....	5	0	4	80 $\nabla$	49·29
<sup>D</sup> Lincluden House [Dumfries] ...	Miss Young .....	5	1	0	60 $\nabla$	46·77
Jardington [Dumfries] .....	J. Rutherford, Esq. ...	5	1	0	80 ?	44·03
New Galloway (Craigencallie) ...	Miss Mary Blackley ...	5	1	0	700	84·18
Glenhead of Trool .....	J. McMillan, Esq. ....	5	0	11	320	75·10
<sup>D</sup> Dalry (Glendarroch) .....	Miss M. Barbour .....	5	0	11	192 $\nabla$	58·62
<sup>D</sup> „ (Clenerie) .....	Mr. R. McMillan .....	8	0	10	800	74·54
<sup>D</sup> „ (The Old Garroch) .....	T. R. Bruce, Esq. ....	8	1	0	448 $\nabla$	66·35
<sup>D</sup> Carsphairn (Shiel) .....	Mr. S. Wilson .....	5	1	0	850 $\nabla$	78·94
<sup>D</sup> „ (Knockgray) .....	Miss Clark Kennedy ...	8	0	11	641 $\nabla$	59·34

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain.
		Diameter	Height Above Ground.	Height Above Sea Level	1907
		in.	ft.    in.	feet.	inches.
<b>DUMFRIES.</b>					
d§ Dumfries (Ivy Bank) .....	Rev. W. Andson .....	5	0 10	70 †	43·11
b Dalton (Kirkwood) .....	Arthur J. Steel, Esq....	5	0 8	245	51·92
b Lockerbie (Castle Milk) .....	Mr. J. Troup .....	5	0 9	199	50·51
Canobie (Byreburnfoot) .....	Mr. David Crabbe .....	3	0 9	...	47·88
b Lochmaben (Esthwaite) .....	W. J. Halliday, Esq....	5	1 0	166 ¶	47·78
Langholm (Westwater).....	J. M. Elliot, Esq. ....	3	1 0	450	56·47
b „ (Drove Road) .....	Mrs. Jackson .....	5	0 9	270	57·12
Moniaive (Glencrosh) .....	Miss McMillan .....	5	1 2	350	55·05
b „ (Maxwelton House) ...	Rev. Sir E. Laurie, Bt..	5	1 6	400 ¶	49·23
b Langholm (Ewes, Burnfoot) ...	J. C. Little, Esq. ....	5	1 0	541 ¶	56·19
„ („ School) .....	Mr. J. C. Lyall .....	5	1 0	445 †	55·94
Eskdale (Castle O'er).....	Richard Bell, Esq.....	3	0 8	640	45·15
b§ Durrisdeer(DrumlanrigGardens)	Mr. D. Inglis .....	5	0 9	187	48·14
Beattock (Kinmelhead) .....	J. Bartholomew, Esq...	5	1 0	820 †	65·82
Moffat (Craigielands).....	Mr. L. Fraser .....	5	1 0	360 †	55·80
b „ (Auchen Castle).....	Mr. W. McAdam .....	5	0 6	500 †	56·68
b „ (Hope Lodge).....	Miss Anstruther.....	5	1 0	450	49·96
„ (Ericstane).....	Mrs. J. J. Welsh .....	5	1 6	575 ¶	53·13
<b>ROXBURGH.</b>					
§ Hawick (Wolflee) .....	Scot.MeteorologicalSoc.	5	0 10	587	35·86
b „ (Braxholme) .....	J. G. Winning, Esq....	5	0 6	457 ¶	35·05
„ (Ploughlands) .....	J. Scott, Esq. ....	5	1 0	250 †	30·06
b§ St. Boswells (Elliston) .....	Mr. D. Melville .....	5	1 0	252	31·39
„ „ (Monksford) .....	A. Mitchell, Esq. ....	5	0 11	320	26·76
b „ „ (Fens) .....	J. J. Fairbairn, Esq....	5	1 6	250	28·18
Kelso (Springwood Nurseries) ...	Messrs. Laing & Mather	5	1 0	200	29·30
„ („ Park) .....	Mr. W. Chaplin .....	5	1 3	130 l	29·38
§ „ (Broomlands) .....	Scot.MeteorologicalSoc.	8	1 2	205	29·35
b Melrose (Asylum) .....	No. 1 Mr. A. C. Pattman ...	5	0 6	480 †	34·35
b „ „ „ No. 2 „ „ „ .....	„ „ „ „ „ „ „ .....	5	1 0	480 †	30·34
Smailholm (Sandyknowe).....	A. Cross, Esq. ....	...	...	...	22·02?
b Chapel-on-Leader [Earlston] ...	Mr. Peter Smith.....	5	0 9	500	34·34

## SELKIRK.

	Meggat Head (Edinburgh W.W.)	No.1 W. A. Tait, Esq., C.E.	5	1	3	1496	50-89	...
D	„ Water (Cramilt Lodge)	Mr. A. Sim	5	0	4	1000	53-72	253
D	Selkirk (The Hangingshaw)	Miss Johnstone of Alva	6	0	6	670	35-89	161
	Galashiels (Abbotsford Rd.)	Dr. J. W. Somerville	5	0	8	416	32-28	212
	„ (Clovenfords)	W. R. Ovens, Esq.	6	1	6	500	39-32	...
	„ (Stantling Craigs)	Mr. W. Ross	12	1	3	800	35-41	...

Ravenscraig (Edinburgh W.W.) No.3	W. A. Tait, Esq., C.E.	5	1	3	2258	77.15	...
Gameshope Loch( „ „ ) No.4	„ „ „	5	1	3	1860	70.65	...

## DIVISION XIII.—SOUTH EASTERN COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain. 1907	Days with $\geq 0.1$ or more recorded.
		Diameter	Height Above Ground	Height Above Sea Level		
		in.	ft. in.	feet.	inches.	
<b>PEEBLES—(con.)</b>						
Loch Craig Head (Edinburgh W.W.) No. 2	W. A. Tait, Esq., C.E.	5	1 3	2627 $\nabla$	61.19	...
Gameshope Farm ( " " ) No. 5a	" " "	5	1 3	1538 $\nabla$	76.14	249
" " " ( " " ) No. 5	" " "	8	1 3	1538 $\nabla$	67.77	...
D Talla Linns Foot ( " " ) No. 6a	" " "	5	1 3	966 $\nabla$	63.09	255
" " " ( " " ) No. 6	" " "	8	1 3	966 $\nabla$	61.80	...
Quarter Hill ( " " ) No. 7a	" " "	5	1 3	1196 $\nabla$	50.31	220
" " " ( " " ) No. 7	" " "	8	1 3	1196 $\nabla$	49.06	...
D Victoria Lodge ( " " ) .....	" " "	5	1 3	904 $\nabla$	47.71	219
" " " ( " " ) ... M	" " "	8	1 3	904 $\nabla$	45.33	...
D Stobo (Dawyck Gardens) .....	Mr. J. J. Crossan .....	5	1 1	600 $\nabla$	40.46	217
§ " Castle .....	Scot. Meteorological Soc.	3	1 0	600	36.52	207
Peebles (Swinton Bank) .....	C. A. Ainslie, Esq. ....	5	0 5	600 $\nabla$	35.82	...
Innerleithen (Leithen Lodge) ...	Mr. D. Clark .....	11	0 0	700 $\nabla$	42.47	...
D West Linton (Rutherford House)	Ewen Cameron, Esq. ....	5	3 3	970 $\nabla$	43.12	211
Eddlestone (Portmore Reservoir)	W. Anderson, Esq. ....	11	0 6	1000	39.18	210
§ N. Esk Reservoir [Penicuik] ...	Mr. W. Tod .....	11	0 6	1150 $\nabla$	43.00	...
<b>BERWICK.</b>						
D Earlston (Cowdenknowes) .....	Mr. J. Robertson .....	5	0 10	360 $\nabla$	33.02	218
Coldstream (Lochton) .....	J. Aitchison, Esq. ....	5	1 0	150 $\nabla$	28.37	...
D " (The Hirsell) .....	Mr. P. McAndrew .....	5	1 0	94 $\nabla$	28.28	173
D § Marchmont House .....	Mr. J. A. Wood .....	5	1 0	500 $\nabla$	33.34	186
D Duns Castle .....	Mr. J. R. Redpath .....	5	1 0	500	29.88	195
D " (Manderston) .....	Mr. F. J. Marshall .....	8	1 6	356 $\nabla$	31.78	169
West Foulden .....	J. Hewat Craw, Esq. ....	5	1 0	250 $\nabla$	25.54	...
St. Abb's Head .....	Bd. of Northern Lights	8	4 3	224	27.75	..
<b>HADDINGTON.</b>						
Garvald (Donolly Reservoir) ...	W. Ross Young, Esq., C.E.	11	1 6	560 $\nabla$	35.16	...
D Drummorie [Musselburgh] .....	Mr. J. Robson .....	5	1 0	75 $\nabla$	30.24	189
D Whittingehame Gardens .....	Mr. J. Garrett .....	5	1 0	348 $\nabla$	34.01	166
Garvald (Thorter Reservoir) .....	W. Ross Young Esq. C.E.	12	1 6	...	31.97	...
§ Haddington (District Asylum) ...	Scot. Meteorological Soc.	5	0 9	240	32.73	...
§ Prestonkirk (Beil) .....	" " "	...	...	...	27.04?	...
Dunbar (Barnsness) .....	Bd. of Northern Lights	...	...	120	25.60	152
§ Prestonkirk (Smeaton) .....	Scot. Meteorological Soc.	7	7 10	100	30.39	...
Gosford House Gardens .....	Rev. J. Hart .....	...	...	...	31.43	...
§ Aberlady Manse .....	" " "	5	0 11	15	29.33	...
North Berwick Reservoir ... ..	W. Ross Young, Esq., C.E.	5	1 6	150 $\nabla$	28.80	...
<b>MIDLOTHIAN.</b>						
Moorfoot Hills (Bowbate) .....	W. Anderson, Esq. ....	11	0 6	2042	53.49	...
" " (Gladhouse Res.) .....	" " " " .....	5	0 6	900	40.00	227
" " (Rosebery) .....	" " " " .....	4	0 6	750	34.70	212
Pentland Hills (Crosswood) .....	" " " " .....	5	1 0	950	43.76	...
Moorfoot Hills (Edgelaw) .....	" " " " .....	4	0 6	654	37.72	211
Pentland Hills (Harperrig) .....	" " " " .....	5	0 6	900	42.63	...
" " (Harehill) .....	" " " " .....	11	1 5	1470	42.22	...



## DIVISION XIII.—SOUTH EASTERN COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.				Depth of Rain.	Days with $\geq 0.1$ or more recorded.
		Diameter	Height Above Ground		Height Above Sea Level	1907	
		in.	ft.	in.	feet.	inches.	
MIDLOTHIAN—(con.)							
Pentland Hills (Loganlea) .....	W. Anderson, Esq. ....	8	1	4	850	43.22	...
§ West Calder (Addiewell) .....	Scot. Meteorological Soc.	5	0	6	600	42.25	...
Pentland Hills (Swanston) .....	W. Anderson, Esq. ....	11	0	6	550	33.87	...
„ „ (Glencorse Res.)..	„ „ „ .....	5	1	3	787	42.81	220
„ „ (Harlaw) .....	„ „ „ .....	5	0	6	800	38.32	...
„ „ (Clubbiedean Res.)	„ „ „ .....	11	0	6	750	38.77	...
„ „ (Harbour Hill) ...	„ „ „ .....	11	0	6	1112	43.27	...
Liberton (Alnwick Hill) .....	„ „ „ .....	11	0	6	400	33.29	194
Dalkeith Gardens .....	Mr. J. Whytock .....	5	1	0	144	26.89	...
† Edinburgh (R. Obs., Blackford Hill)	T. Heath, Esq. ....	8	1	0	442	30.18	184
§ Corstorphine House .....	T. N. Johnston, Esq. ....	5	1	0	165	34.89	228
Musselburgh (Levenhall) .....	The Misses Husband...	5	1	0	15	29.16	...
Edinburgh (George Square) ...	Surg.-Maj. W. G. Black	6	3	0	261	29.59	...
† „ (University) .....	Prof. T. Hudson Beare.	5	1	0	240	32.23	188
† „ „ .....	M „ „ „ .....	5	1	0	240	32.26	...
D „ (City Observatory)...	W. Peck, Esq. ....	8	1	0	349	27.22	171
† „ (Charlotte Square)...	Messrs. Leslie & Reid, CE	11	1	6	190	31.47	...
† „ „ .....	„ „ „ „ .....	12	63	0	300	24.17	...
§ „ (Streatham House)...	Scot. Meteorological Soc.	...	...	...	...	35.30	...
Cramond Bridge (Craigiehall) ...	A. Cross, Esq. ....	...	...	...	...	35.72	...
§ Leith .....	Meteorological Office ...	8	1	8	37	30.74	197
§ „ (Navigation School).....	Scot. Meteorological Soc.	5	0	5	76	32.88	208
D Davidson's Mains (Broomfield)...	Mr. C. Comfort .....	5	0	10	42	29.60	178
LINLITHGOW.							
D Whitburn (Polkemmet) .....	Lady Baillie .....	5	2	0	600	53.08	272
D Bathgate (Boghead House) .....	J. Robertson Durham Esq	5	2	0	500	47.16	221
§ Uphall .....	Scot. Meteorological Soc.	5	0	10	380	38.37	...
Carribber Reservoir .....	M John P. Lawrie, Esq. ...	5	0	7	425	36.71	...
D Linlithgow Academy .....	J. Beveridge, Esq. ....	5	1	0	170	38.57	201
D Dalmeny House .....	Mr. D. T. Johnston ...	8	0	5	...	32.09	194
Bo'ness (Neidpath Cottage) .....	Mr. J. Grant .....	5	3	0	200	30.16	...
D „ (Grange) .....	H. M. Cadell, Esq. ...	5	0	2	14	32.24	187

## DIVISION XIV.—SOUTH WESTERN COUNTIES.

## LANARK.

§ Leadhills .....	Scot. Meteorological Soc.	5	1	1	1300	67.83	255
Lamington (Cowgill Reservoir)...	J. Chisholm, Esq., C.E.	5	1	0	970	47.46	...
§ „ .....	Scot. Meteorological Soc.	...	...	...	...	43.11	...
D Biggar (Cambus Wallace) .....	F. W. M. Watson, Esq.	6	0	6	748	32.63	159
Lanark (Rhyber Lodge) .....	R. Swann, Esq. ....	6	3	0	650	35.00	...
D Cleghorn .....	Mrs. Elliott Lockhart...	3	0	3	720	41.03	205
D Carluke (Mauldslie Castle) .....	Mr. D. Bryson .....	5	1	0	140	38.18	175
Hamilton Water Works .....	Mr. W. H. Purdie .....	7	1	0	436	41.35	...
D „ (Laighstone Hall) .....	Rev. T. M. B. Paterson	5	1	9	260	40.52	219

## DIVISION XIV.—SOUTH WESTERN COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain. 1907	Days with .01 or more recorded.
		Diameter	Height Above Ground		Height Above Sea Level	
		in.	ft.	in.	feet.	inches.
LANARK—(con.)						
D Motherwell (Dalzell Gardens) ...	Mr. W. Mackie .....	6	5	6	89	37·01? 179
§ Busby (Thornton Hall) .....	Meteorological Office ...	...	...	...	440	43·01 217
§ Bothwell .....	Scot. Meteorological Soc.	5	0	9	150	35·15 247
Glasgow (Tollcross Park) .....	J. Whitton, Esq. ....	5	0	6	85	43·97 ...
„ Green .....	„ „ „ .....	5	0	6	35	44·71 ...
„ (Bellahouston Park) ...	„ „ „ .....	5	0	6	160	39·12 ...
† „ (Botanic Gardens) .....	„ „ „ .....	5	0	6	110	39·07 ...
„ (Alexandra Park) .....	„ „ „ .....	5	0	6	141	41·17 ...
„ (George Square) .....	„ „ „ .....	8	6	0	40	38·80 ...
„ (Kelvingrove Park) ...	„ „ „ .....	5	0	6	48	41·54 ...
„ (Ruchill Park) .....	„ „ „ .....	5	0	6	220	43·80 ...
D § „ (Belvedere Hospital) ...	Dr. J. Brownlee .....	5	1	1	60	43·31 211
§ „ Observatory .....	Prof. L. Becker .....	11	2	0	182	42·74 213
„ (Springburn Park) .....	J. Whitton, Esq. ....	5	0	6	361	39·68 ...
D Airdrie (Hillend Reservoir) .....	Mr. W. A. Ritchie .....	6	4	6	620	42·37 209
§ Roughrigg Res. [Slamannan] ...	J. Chisholm, Esq., C.E.	5	1	0	661	42·33 ...
AYR.						
Ballantrae (Glendrisaig) .....	P. Murdoch, Esq. ....	10	4	0	42	38·49 202
Barrhill (Dochroyle) .....	Mr. J. Scott .....	6	0	6	548	48·62 ...
Colmonell .....	A. Beattie, Esq. ....	6	0	6	140	47·28 ...
D § Girvan (Pinmore) ..	Hugh Hamilton, Esq. ...	5	0	5	197	57·67 270
D Barr Manse .....	Rev. G. Dods .....	5	1	0	330	56·03 215
Girvan (Glendoune Gardens) ...	Mr. J. Simons .....	5	1	0	100	44·12 196
Loch Finlas .....	J. Young, Esq., C.E. ...	5	1	0	849	63·27 ...
D § Dalrymple (Bow Hill) ..	A. Gillespie, Esq. ....	...	...	...	978	52·70 237
D Maybole (Culzean Gardens) .....	Mr. D. Murray .....	9	3	0	200	40·00 181
„ (Knockdon Farm) .....	A. Cross, Esq. ....	5	2	0	344	39·31 ...
Ayr (Doonside) .....	W. H. Dunlop, Esq. ...	5	1	0	90	43·74 ...
D „ (Doonholm) .....	J. Kennedy, Esq. ....	5	1	0	90	40·11 202
Mauchline (Catrine) .....	H. W. Pollock, Esq. ...	6	1	0	301	38·48 195
Muirkirk (Glenbuck) .....	Mr. W. F. Hamilton ...	6	1	0	900	52·20 ...
§ Kilmarnock .....	Scot. Meteorological Soc.	...	...	...	74	44·59 216
D „ (Agricultural College) ..	Prof. R. A. Berry .....	8	1	0	100	40·46 216
„ (North Craig) .....	R. Blackwood, Esq. ...	12	1	0	319	47·80 ...
§ Saltcoats .....	Scot. Meteorological Soc.	...	...	...	...	46·96 ...
Kilwinning (Greenhead Filters) ..	Gilbert Chrystie, Esq. CE	11	1	0	186	53·80 ...
D Dalry (Blair) .....	Mr. W. Mair .....	5	1	3	155	60·11 216
„ (Munnock Reservoir) .....	Gilbert Chrystie, Esq. CE	11	1	3	325	61·10 ...
„ (Caaf Reservoir) .....	„ „ „ .....	9	1	0	515	67·84 ...
„ (Camphill Reservoir) .....	James Lee, Esq., C.E. ...	12	1	6	611	68·45 ...
Shaws Water Works (Kelly Dam) ..	D. Macalister, Esq., C.E.	6	1	0	640	78·80 ...
„ „ (Knockencorsan) ..	„ „ „ .....	6	1	0	1040	69·10 ...
RENFREW.						
Lochwinnoch (Garthland) .....	H. Macdowall, Esq. ...	5	0	11	150	74·24 208
„ (Castlesemples) .....	Mr. C. Jamieson .....	...	26	0	240	51·74 224
Gorbals Dist. W.W. (Ryat Lynn) ..	J. R. Sutherland, Esq. CE	8	0	5	310	57·15 ...

## DIVISION XIV.—SOUTH WESTERN COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain.	Days with $\geq 0.1$ or more recorded.
		Diameter	Height Above Ground	Height Above Sea Level	1907	
		in.	ft. in.	feet.	inches.	
RENFREW—(con.)						
Gorbals Dist. W.W. (Waulk Glen)	J.R. Sutherland, Esq. C.E.	12	0 5	280	55.10	...
" " " (Middleton)	" " "	12	0 5	550	67.95	...
" " " (Nether Cairn)	" " "	12	0 5	700	70.15	...
Paisley W.W. (Stanely)	James Lee, Esq., C.E.	12	1 0	190	46.47	...
" " (Back Thornley Muir)	" " "	12	1 0	646	51.91	...
" " (Muirhead)	" " "	12	1 0	482 $\pi$	62.81	...
" " (Springside)	" " "	12	1 0	532 $\pi$	68.25	...
D Glasgow (Queen's Park)	J. Whitton, Esq.	8	0 9	144 $\pi$	42.23	217
" (Maxwell Park)	" " "	5	0 6	69	41.22	...
Paisley (Crookston House)	Mrs. Hotchkis	5	0 5	50 ?	39.35	...
D† " (The Coats Observatory)	John Woodrow, Esq.	10	1 8	107	49.93	240
Shaws W.W. (Duchall Moor)	D. Macalister, Esq., C.E.	6	1 0	1150	78.90	...
" " (Creuch Hill)	" " "	6	1 0	1350	72.20	...
" " (Largs Road)	" " "	5	1 0	910	56.77	...
" " (Green Water)	" " "	6	1 0	788 $\pi$	72.90	...
§ Douglasshill Res. (Port Glasgow W.W.)	James Murray, Esq.	5	1 6	540 $\uparrow$	52.02	...
§ Auchendores Res. ( " " " )	" " "	5	1 6	320 $\uparrow$	49.35	...
Shaws W.W. (Gryfe Reservoir)	D. Macalister, Esq., C.E.	6	1 0	640 $\pi$	70.20	...
" " (Mansfield)	" " "	5	1 0	573 $\pi$	66.96	255
" " (Compensation Res.)	" " "	5	1 0	600	73.73	...
" " (Loch Thom)	" " "	5	1 0	643 $\pi$	73.12	286
" " (Shielhill)	" " "	6	1 0	962 $\pi$	75.20	...
" " (Darndaff Moor)	" " "	6	1 0	850	69.60	...
" " (Spango Burn)	" " "	6	0 9	757 $\pi$	73.40	...
" " (Hole Glen)	" " "	5	1 0	603	62.10	263
" " (New Yetts Dam)	" " "	5	1 0	800	69.01	264
D§ Greenock (Prospect Hill)	" " "	5	1 0	233	65.00	257
Bishopton (Ingliston)	D. Cross, Esq.	5	1 0	195	49.22	...
Langbank (East Bank Gardens)	A. Cross, Esq.	5	2 6	...	53.31	...

## DIVISION XV.—WEST MIDLAND COUNTIES.

## DUMBARTON.

D§ Dumbarton (Leven Shipyard)	Messrs W. Denny & Bros.	5	1 0	9 $\uparrow$	48.39	235
D Duntocher (Cochno Filters)	G. D. Mackie, Esq., C.E.	5	1 0	400 $\pi$	51.03	231
" (Greenside Res.)	" " "	5	1 0	876 $\pi$	53.82	...
" (Loch Cochno)	" " "	5	1 0	909 $\pi$	56.60	...
" (Jaw Reservoir)	" " "	5	1 0	912 $\pi$	63.80	...
D Cardross (Darleith)	Claud A. Allan, Esq.	5	1 0	350 $\mathcal{B}$	56.67	277
D Helensburgh (Fernigair House)	J. R. Wilson, Esq.	6	0 6	18	55.33	228
D " (Water Works)	" " "	6	0 6	300	48.63	241
§ Roseneath (Achnashie)	Scot. Meteorological Soc.	...	...	...	63.45	205
Garelochhead (Rahane)	Mr. W. S. Turnbull	...	...	32	71.20	...
Arrochar (The Manse)	Rev. C. A. Macdonald.	5	1 0	14	64.83	...
D " House	Mr. J. Thomson	6	1 3	50	89.50	226

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

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain.	Days with 0.1 or more recorded.	
		Diameter	Height Above Ground		Height Above Sea Level		1907
		in.	ft.	in.	feet.	inches.	
STIRLING.							
D Torrance (Glenorchard).....	Miss Bartholomew .....	5	1	6	200	52.36	212
Strathblane (Mugdock Reservoir)	J.R.Sutherland, Esq. CE	8	0	6	320	55.80	...
„ (Craigend Castle) ...	Capt. J. Kerr .....	5	1	2	533 T	59.51	209
D „ (The Manse) ...	Rev. W. B. Moyes.....	5	0	6	235 T	62.90	227
Kilsyth (Currymire) .....	James Smith, Esq. ...	5	1	2	200	55.08	...
Muiravonside Ho. [Linlithgow].	Mr. C. Leeder.....	5	0	4	175	40.58	...
Polmont (Vellore) .....	C. Stirling, Esq.....	...	...	...	330	37.38	...
D Falkirk (Inglewood, Laurieston)	W. Ballantine, Esq. ...	5	1	3	133 T	42.07	188
D „ (Westbank) .....	A. Nimmo, Esq.....	5	0	9	75	41.05	211
D „ (Burgh Buildings) .....	David Ronald, Esq., C.E.	5	1	0	107 T	40.69	224
„ (Ardenlea) .....	J. Aitken, Esq., F.R.S.	5	1	0	105 T	42.59	...
„ (Kerse)..... No. 1	C. Brown, Esq. ....	8	1	0	18 T	36.60	...
„ „ „..... No. 2	„ „ „ .....	5	0	10	18 T	36.68	...
D „ (Cauldhame) .....	David Ronald, Esq., C.E.	5	1	0	73 T	39.30	219
Little Denny Reservoir .....	C. Massie, Esq. ....	8	1	0	326	51.96	...
„ „ Filters.....	„ „ .....	8	1	0	268 T	50.22	...
Kilsyth (Faughlin Res.) .....	„ „ .....	8	1	0	707 T	65.79	...
§ Bannockburn (Auchenbowie) ...	Scot. Meteorological Soc.	...	...	...	...	53.15	...
Earlsburn Reservoir .....	C. Massie, Esq. ....	8	1	0	1202 T	69.98	...
Killearn (Achnagowen).....	Miss Guthrie-Smith ...	5	0	10	332 T	55.56	...
Stirling (Touch Reservoir) .....	C. Stirling, Esq. ....	...	...	...	755	54.22	...
„ (Polmaise Gardens).....	Mr. W. W. Ritchie ...	6	1	0	12	40.43	...
„ (Victoria Place) .....	R. Kidston, Esq., F.R.S.	5	2	10	100	41.66	...
D § Buchlyvie (The Manse).....	Rev. J. A. Macdonald..	5	1	3	118 T	57.53	270
Gargunnoch House .....	C. Stirling, Esq.....	5	5	8	85 T	41.80	...
c Kippen (Arngomery) .....	Mr. P. McCowan .....	5	4	2	150	53.81	185
D Bridge of Allan (The Lea) .....	Laurence Pullar, Esq. ...	5	1	0	110	39.20	224
Ben Lomond .....	J.R.Sutherland, Esq. CE	...	...	...	1800	114.80	...
Loch Arklet (Corriehichon) .....	„ „ „ .....	...	...	...	870	84.70	...
„ „ (Corriearklet) .....	„ „ „ .....	...	...	...	950	87.00	...
Glengyle .....	„ „ „ .....	...	...	...	380	68.80	...
BUTE.							
Arran (Pladda) .....	Bd. of Northern Lights	...	...	...	130	51.74	175
„ (Pillar Rock, Holy Island)	„ „ „ .....	3	0	3	46	59.86	185
D „ (Brodick, U.F. Manse) ...	Rev. A. Sutherland ...	5	1	0	300	68.48	231
„ „ (Strabane) .....	A. Hugh Douglas, Esq.	5	1	5	25	70.57	...
D Rothesay (Crichton Road) .....	H. Lauder, Esq.....	5	4	0	97	58.58	251
§ „ (Glenburn).....	R. Henderson, Esq. ...	5	1	0	95	58.54	254
Port Bannatyne (Ettrickdale) ...	Lt.-Col. M.R. Gray Buchanan	5	1	0	190 B	58.03	259
ARGYLL—(MAINLAND.)							
Mull of Kintyre .....	Bd. of Northern Lights	...	...	...	279 P	48.39	...
D Campbeltown (Witchburn) .....	the late Mr. A. Giffen..	5	1	2	75	50.14	247
§ „ (The Rectory) .....	Scot. Meteorological Soc.	...	...	...	...	55.16	...
„ (Devaar) .....	Bd. of Northern Lights	...	3	4	120 P	38.41	...

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

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain.	Days with .01 or more recorded.
		Diameter	Height Above Ground	Height Above Sea Level	1907	
		in.	ft. in.	feet.	inches.	
ARGYLL—(MAINLAND)— <i>con.</i>						
d Kintyre (KilleanManse, Muasdale)	Rev. D. J. Macdonald ..	5	1 0	30 B	45.93	225
„ (Largie Castle) .....	J. R. M. Macdonald, Esq.	5	1 0	160 T	46.12	...
„ (Skipness Castle) ... ..	Mr. P. McLean ... ..	6	1 6	27 L	48.89	...
d „ (Glenreadell Mains) ...	Ronald S. Ker, Esq. ...	5	1 0	149 T	53.15	231
„ (Bunawa Cottage, Tarbert)	F. A. Knight, Esq. ...	...	...	...	68.45	...
„ (Carse, „ „)	J. Birkmyre, Esq., jun.	6	1 6	20	45.11	242
d Tighnabruaich (Craigandaraich)	A. S. Cousland, Esq. ...	6	4 0	30 B	58.63	222
d „ „ „	„ „ „ „	12	5 0	50 B	64.37	222
d Dunoon (Reservoir) .....	J. „ Andrew, Esq., C.E. ...	4	3 6	245 A	87.84	252
d „ (Redhurst) .....	Dr. J. Banks .....	5	1 6	60	87.22	237
„ (Grammar School) .....	J. MacGregor, Esq. ...	5	1 5	56 A	80.15	...
d Lock Eck (Benmore).....	H. J. Younger, Esq. ...	5	1 3	40	90.64	208
d Ardrishaig (Canal Office) .....	L. J. Groves, Esq., C.E.	5	1 0	44	70.19	240
d§ Lochgilphead (Poltalloch).....	Mr. D. S. Melville.....	5	1 2	135	59.75	259
d Loch Fyne (Furnace).....	Mr. W. Nicol .....	5	3 0	15 L	72.40	234
d† Lochgoilhead (Nuthill) .....	G. Murray Knox, Esq..	5	1 0	15	75.67	253
d† Inveraray (Newtown) .....	Mrs. Little .....	5	1 0	17	74.85	276
d Kilmelfort (Arduaine) .....	J. A. Campbell, Esq. ...	5	0 3	23 L	63.44	241
§ Appin (Airds).....	Scot. Meteorological Soc.	5	0 11	15	53.99	...
d Morvern (Kingairloch) .....	G. Herbert Strutt, Esq.	5	1 0	40 P	95.59	241
„ (Drimnin) .....	Mrs. Gordon .....	5	1 0	225	60.35	273
d Ballachulish House .....	F. C. Beresford Drummond Esq.	5	1 0	56 A	86.70	290
d „ (Glencoe) .....	J. D. Sutherland, Esq. ...	...	6 0	100	81.39	198
d§ Strontian (Laudale) .....	J. A. Fletcher, Esq. ...	8	1 0	15 A	76.65	259
d§ Loch Sunart (Glenborrodale) ...	C. D. Rudd, Esq. ....	5	0 2	60 L	66.38	249
Glenleven (Blackwater) ... No. 4	Loch Leven Power Co..	...	...	1040 ?	73.42	...
„ (Dam).....No. 2	„ „ „ „	...	...	1050 ?	68.91	...
„ (Invercann).....No. 6	„ „ „ „	...	...	1100 ?	62.78	...
„ (Kinlochleven) ..No. 1	„ „ „ „	...	...	100 ?	80.60	...
Ardnamurchan .....	Bd. of Northern Lights	8	4 3	180	50.26	180
Ardgour .....	Capt. A. J. N. Maclean	5	0 10	65 B	92.82	...
Loch Eil (Corran) .....	Bd. of Northern Lights	3	1 6	38	89.49	249
ARGYLL—(INSULAR.)						
d Islay (Tighcargaman, Port Ellen)	Peter Reid, Esq. ....	5	2 10	24	52.63	242
d „ (Ardbeg) .....	C. E. Hay, Esq. ....	5	7 0	46 T	51.08	252
„ (Rhinns) .....	Bd. of Northern Lights	7	3 6	150	37.70	...
„ (Lochindaul).....	„ „ „	3	0 6	52	44.60	...
„ (McArthurshead).....	„ „ „	3	0 4	128	68.10	186
d „ (Eallabus).....	J. Laughton, Esq. ....	5	1 0	68 T	55.80	258
d „ (Gruinart Post Office).....	Miss Brown.....	5	1 0	10	50.02	212
„ (Rhuvaal) .....	Bd. of Northern Lights	3	1 3	147	43.29	216
Jura (Jura House) .....	G. Searle, Esq. ....	...	...	...	57.77	...
„ (Fladda) .....	Bd. of Northern Lights	3	1 0	42	62.58	216
Lismore (Mousedale).....	„ „ „	7	3 10	105	33.34	166
§ Eriska Island .....	Scot. Meteorological Soc.	...	...	...	61.92	247
Mull (Bunessan) .....	Duncan Cameron, Esq.	5	1 4	50 B	86.12	...
§ „ (Lochbuie).....	Scot. Meteorological Soc.	8	1 2	20	90.00	232

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

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain.	Days with .01 or more recorded.
		Diameter	Height above Ground.	Height above Sea Level	1907	
		in.	ft.	in.	feet.	inches.

ARGYLL (INSULAR)—(con.)						
D Mull (Kinlochspelve) .....	Mr. R. McMorran .....	8	1	0	45	97·44 260
D „ (Ulva) .....	F. W. Clark, Esq.....	5	1	0	30 A	62·39 261
§ „ (Gruline) .....	Meteorological Office ...	8	1	0	101 ?	74·95 257
D „ (Quinish) .....	J. N. Forsyth, Esq. ...	5	1	3	35 B	55·06 261
„ (Glengorm) .....	F. Morgan, Esq.....	5	0	11	300	54·35 ...
„ Sound of .....	Bd. of Northern Lights	3	1	4	55	65·03 225
Sanda .....	„ „ „	...	...		165	38·00 175

## DIVISION XVI.—EAST MIDLAND COUNTIES.

## CLACKMANNAN.

Alloa (Mar Street).....	A. Mitchell, Esq. ....	5	0	6	70	32·25	...
„ W.W. (Gartmorn Res.)...	Andrew Mackie, Esq. CE	11	1	0	172 A	35·80	...
D Alva House.....	Miss Johnstone of Alva	5	1	6	180	45·59	215
D Dollar (Dollarbeg).....	James Bleloch, Esq. ...	5	0	9	265 T	44·89	198
D§ „ (Academy) .....	Mr. A. Blackwood .....	9	1	0	178	50·20	164

## KINROSS.

Blairingone [Dollar] .....	Rev. J. F. Cameron ...	5	1	6	300 T	45·14	...
D Loch Leven Sluice .....	Mr. W. Hay .....	8	0	9	360 L	40·43	183

## FIFE.

D Culross (Brankston Grange) ...	J. J. Dalgleish, Esq. ...	5	0	2	116 A	34·61	190
Dunfermline (Keavil) .....	late L. Dalgleish, Esq..	5	0	2	150	30·30	...
Carnock (Luscar House) ...No. 1	A. Mitchell, Esq. ....	5	0	10	430 T	38·82	...
„ „ „ „ „No. 2 „ „	„ „ „ „ „	5	0	10	430 T	38·13	...
„ (Craigluscar) .....	A. W. Bell, Esq., C.E.	12	0	4	280 A	43·45	...
Beath (Outh) .....	late L. Dalgleish, Esq..	5	0	2	890	37·24	...
§ Leslie (Lothrie Reservoir).....	Scot. Meteorological Soc.	5	0	5	702	37·71	...
Largo (Carlton) .....	Mr. E. Tate .....	5	2	6	150 T	35·92	193
D Colinsburgh Manse .....	Rev. Robert Dick .....	5	2	0	130 T	31·91	188
„ „ (Balcarres).....	Mr. J. M. Paul .....	5	1	0	300 T	34·10	199
§ „ „ (Gilston) .....	Scot. Meteorological Soc.	...	...	...	...	37·59	...
D Carnbee (Ovenstone W.W.) .....	A. P. Watson, Esq. ...	5	1	0	168 A	28·74	174
§ Cupar (Clatto Reservoir).....	Scot. Meteorological Soc.	...	...	...	...	33·69	...
D „ „ (Fife & Kinross Asylum)..	W. Swinton, Esq. ....	5	1	0	210	31·97	184
§ Crail (Cambo) .....	Scot. Meteorological Soc.	...	...	...	...	29·71	...
D St. Andrews (Waterworks) .....	W. Watson, Esq. ....	5	1	0	217 A	31·57	201
D „ „ (South Street) .....	Miss Macadam .....	5	1	0	55 B	33·25	219
Kilmany (Mountquhanie House)	Mr. David Dinwoodie...	3	1	0	350 B	33·31	...
D Tayport (Lighthouse).....	J. Thompson, Jr. Esq. CE	5	1	0	27	32·80	186

## PERTH.

Aberfoyle (The Inn) .....	J. R. Sutherland, Esq. CE	8	0	6	60	54·60	...
Ochertyre [Stirling].....	Capt. C. M. Dundas, R.N.	5	1	0	18	43·24	...
Dunblane (Kippenross).....	A. H. Anderson, Esq. ...	3	1	3	240	42·20	...

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

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain.	Days with .01 or more recorded.	
		Diameter	Height Above Ground		Height Above SeaLevel		1907
		in.	ft.	in.	feet.	inches.	
PERTH—(con.)							
n Doune (Gartincaber).....	G. Burn Murdoch, Esq.	5	1	0	200 T	44.65	221
D „ .....	Rev. G. S. Mackay.....	5	1	0	125 T	43.55	217
Dunblane (Kippendavie Lodge)..	A. H. Anderson, Esq...	8	2	9	300	55.25	...
Sheriffmuir (Lynns Farm) .....	„ „ „ „ .....	5	1	0	550	42.41	...
Glendevon (Glensherup) .....	A. W. Bell, Esq., C.E.	12	0	4	745 T	53.42	...
Loch Dhu .....	J.R.Sutherland, Esq.CE	8	0	6	325	80.60	...
Ledard .....	„ „ „ .....	...	...	...	1500	56.10	...
Loch Drunkie.....	„ „ „ .....	8	0	6	420	63.85	...
Loch Vennachar.....	„ „ „ .....	8	0	6	275	51.95	...
Bridge of Turk .....	„ „ „ „ .....	8	0	6	275	60.95	...
Doune (Cauldhame) .....	J. Forbes, Esq. ....	5	1	0	830	53.05	211
Loch Katrine (Tunnel Hill Top)	J.R.Sutherland, Esq.CE	8	0	6	830	78.70	...
Between Glen Finlas & Ben Ledi.	„ „ „ .....	8	0	6	1800	46.75?	...
Callander (Leny House) .....	J. H. Buchanan, Esq...	5	0	4	340 T	61.90	...
Braco (Nether Cambushinnie) ...	J. W. Stirling, Esq. ...	5	0	10	380 T	50.70	...
Glenfarg (U.F. Manse).....	Rev. J. W. Jack.....	5	1	0	480	39.37	...
§Abernethy (Ayton House) .....	Scot.Meteorological Soc.	5	0	11	120	33.58	...
Bridge of Earn (Ballendrick) ...	R. Richardson, Esq. ...	3	4	0	50	34.09	...
D§Balquhidder (Stronvar) .....	J. Carnegie, Esq. ....	5	1	0	422 T	66.53	236
D Lochearnhead (Ardvorlich) .....	Col. J. Stewart, C.I.E..	5	1	0	325 T	62.65	240
§Comrie (Clathick) .....	Scot.Meteorological Soc.	...	...	...	300	42.35	176
D Perth (Craigie Road).....	Sydney Wilson, Esq....	5	1	0	56 T	32.48	182
D† „ (Pitcullen House) .....	Henry Coates, Esq. ...	5	1	0	133 T	31.85	161
Killin (Auchmore House) .....	Mr. W. J. Burrell.....	5	1	0	400 T	58.22	...
D Coupar Angus .....	Mr. J. Robertson .....	5	1	3	183 T	30.58	204
Dunkeld (Inverbraan) .....	J. Burn Murdoch, Esq.	...	...	...	...	36.08	...
D Aberfeldy (Dunros) .....	H. W. Johnston, Esq..	5	1	0	400	33.50	214
D Blairgowrie (Ballintuim House).	Miss M. A. McDonald..	5	1	4	600	38.01	215
§Rannoch Station .....	Scot.Meteorological Soc.	...	...	...	950 ?	48.97	220
Pitlochry (Donavoured) .....	Miss Maxwell.....	5	0	7	400	33.06	...
D Blair Atholl .....	Mr. A. Cameron.....	5	1	0	420	32.60	211
FORFAR.							
D Buddonness (Low Light) .....	J.Thompson, Jr., Esq.CE	5	1	0	17	29.55	185
D§Dundee (Harbour).....	„ „ „ „ .....	5	0	10	14	27.19	194
D Broughty Ferry (Tayside Cottage)	Mr. A. Robb .....	5	5	6	25	30.49	175
§Dundee (Eastern Necropolis) ...	Mr. J. Carnochan .....	3	0	4	199 T	31.40	...
D§ „ ( „ „ „ ) .....	„ „ „ „ .....	5	1	0	199 T	31.99	206
„ (Dens Works) .....	Messrs. Baxter Bros. ...	5	...	...	119 T	32.23	215
„ (Camperdown Works)...	Messrs. Cox Bros. ...	5	3	8	290	29.35	...
D§ „ (Balruddery) .....	J. Martin White, Esq..	5	1	0	266 T	33.27	200
D Craigton .....	G. Baxter, Esq.. C.E...	8	1	0	410	36.85	176
„ .....	M „ „ „ „ .....	11	3	0	481	35.23	...
„ (Hillhead) .....	„ „ „ „ „ .....	11	3	0	570	35.43	...
Crombie Reservoir .....	M „ „ „ „ .....	11	3	0	522 T	39.51	...
D Arbroath (Waterworks) .....	P. C. Smith, Esq., C.E.	5	1	0	58 T	26.12	154
„ ( „ „ ).....	M „ „ „ „ .....	5	1	0	58 T	26.10	...

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

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain.	Days with 0.1 or more recorded.
		Diameter	Height Above Ground.	Height Above Sea Level	1907	
		in.	ft. in.	feet.	inches.	
FORFAR—(con.)						
§Arbroath (Dishland Hill) .....	Mr. J. Campbell.....	5	1 0	69 T	29.62	210
Forfar W.W. (Den of Ogil).....	T. Watson Craik, Esq.	12	2 6	633 T	37.91	...
Glamis Castle.....	Mr. T. Wilson .....	5	1 6	250	34.02	...
Forfar (Lilyfield) .....	D. M. Mackie, Esq. ...	5	0 5	225 T	34.70	187
D „ (Little Causeway) .....	J. Watson Craik, Esq..	8	4 6	218 T	33.18	203
Rescobie (Pitscandly) .....	W. T. Farquhar, Esq..	5	5 10	280	32.71	...
D Kirriemuir (Eskhill) .....	Admiral E. Drummond	5	0 9	310	35.10	216
„ (Lintrathen) .....	M G. Baxter, Esq., C.E..	8	1 0	700	36.40	...
D „ ( „ ) .....	„ „ „ .....	8	1 0	700	37.89	222
„ ( „, Balnakeilly)M	„ „ „ .....	8	1 0	700	35.30	...
„ ( „, Creich Hill)M	„ „ „ .....	8	1 0	1500	33.20	...
„ (Longdrum) .....	„ „ „ .....	8	1 0	1142	42.80	...
„ (Glen Dye) .....	„ „ „ .....	8	1 0	1409	46.40	...
„ (Barney) .....	„ „ „ .....	8	1 0	1145	37.50	...
„ (Glen Damff) .....	„ „ „ .....	8	1 0	1480	40.60	...
D § „ (Lednathie).....	Mr. W. G. Lindsey ...	5	1 0	720	43.03	217
Montroseness .....	Bd. of Northern Lights	3	1 0	124	31.20	...
D Montrose (Melville Gardens) ...	S. L. Christie, Esq. ...	5	9 0	23 T	31.86	191
§ „ (Sunnyside Asylum)...	Dr. J. G. Havelock ...	5	0 10	200	32.51	...
D „ (Kinnaber W.W.).....	S. L. Christie, Esq. ...	5	1 0	38 T	34.17	188
Brechin (Stracathro Gardens) ...	late Rt. Hon J A Campbell	5	1 0	200 T	33.64	...

## DIVISION XVII.—NORTH EASTERN COUNTIES.

## KINCARDINE.

§ Laurencekirk (Johnstone Lodge)	Scot. Meteorological Soc.	...	...	...	34.72	...
D Fettercairn (The Burn) .....	Col. C. McInroy, C.B...	5	0 11	250	36.46	210
„ Manse.....	Rev. W. Anderson ..	5	0 2	230 T	35.29	...
„ (Fasque Gardens) ...	Sir J.R. Gladstone, Bart.	5	1 0	320 T	38.26	163
Strachan (Bridge of Dye).....	„ „ „ .....	5	0 6	540 T	48.88	...
D Stonehaven (Mains of Cowie) ...	John Hart, Esq.....	5	1 0	80	28.68	184
Crathes (Cross Roads, Durris) ...	A. Macdonald, Esq. ...	5	1 0	420 T	35.79	211
Durris House [Drumoak].....	Mr. A. Reid .....	5	0 6	200 ?	35.77	...
D† Banchory (Invercannie) .....	W. Dyack, Esq., C.E..	12	0 10	205 T	36.26	198
§ Crathes (Pinewood) .....	J. Smith, Esq. ....	5	1 0	145 T	31.43	188
D „ (Woodbank Cottage)....	Mr. D. Murchison .....	5	0 6	165 T	31.97	190
Banchory (Hirn) .....	Mr. W. Caird .....	5	1 0	287 T	32.96	...
Girdleness .....	Bd. of Northern Lights	7	4 0	185	23.33	...

## ABERDEEN.

D† Braemar (Geldie Cottage) ... No. 2	W. Dyack, Esq., C.E...	5	1 0	1425	34.75	174
† „ .....	the late J. Aitken, Esq.	8	0 9	1114 T	31.53	...
D† „ (Derry Lodge) ... No. 6	W. Dyack, Esq., C.E...	5	1 0	1400	35.25	205
Beinn Breac .....	No. 7 „ „ „ .....	5	1 0	2700	51.00	...
Ben Muich Dhui (Carn à Mhaim) No. 5	„ „ „ .....	5	1 0	2700	52.20	...
D† Balmoral Castle Gardens .....	J. Michie, Esq., M.V.O.	8	0 10	927 T	31.93	218





## DIVISION XVIII.—NORTH WESTERN COUNTIES.

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain.	Days with $\geq 0.1$ or more recorded.
		Diameter	Height Above Ground.	Height Above Sea Level	1907	
		in.	ft. in.	feet.	inches.	
<b>WEST INVERNESS.</b>						
D North Ballachulish (Alltshellach)	B. Chinnery-Haldane Esq.	5	2 1	80	72.21	260
D Moidart (Kinlochmoidart)	R. Stewart, Esq.	5	1 3	25	67.03	254
D Loch Shiel (Glenfinnan)	Col. J. A. Macdonald	5	1 2	50 ?	100.45	265
D § Fort William (Atholl Bank)	W. T. Kilgour, Esq.	5	1 0	171 $\pi$	75.17	270
D Arisaig House	Mr. W. Grant	5	1 0	20 ?	58.57	251
Loch Morar (Meoble Lodge)	E. M. Crosfield, Esq.	...	...	104 $\uparrow$	92.30	...
§ Glen Dessary	Scot. Meteorological Soc.	...	...	...	98.10	...
D Loch Nevis (Inverie)	Mr. J. Huggins	5	0 6	10	81.50	262
D Glenquoich	Mr. D. Grant	8	1 2	569 $\pi$	123.54	291
D Glenelg Manse	Rev. A. Mactaggart	5	1 0	85 $\pi$	61.90	251
D Eigg (Kildonan)	Mrs. Glendinning	5	1 0	35	52.36	215
Hyskier	Bd. of Northern Lights	5	0 2	20	30.18	...
Skye (Oronsay)	" " "	...	0 6	58	51.40	204
" (Kyleakin)	" " "	5	4 6	53	48.62	224
D " (Scalpay Island)	Mr. D. Gunn	5	1 0	4	70.84	261
§ " (Glendrynoch, L. Harport)	Meteorological Office	5	1 0	40	72.88	...
" (Dunvegan)	Roderick MacAskill, Esq.	8	3 0	60	99.65	...
Barra (Barrahead)	Bd. of Northern Lights	7	3 0	683	28.46 ?	...
N. Uist (Monach)	" " "	8	5 6	150	45.84	239
D " (Lochmaddy)	T. D. MacGregor, Esq.	5	0 9	...	40.97	239
Harris (Island Glass)	Bd. of Northern Lights	7	4 2	130	33.91	179
D " (West Tarbert)	R. Sinclair, Esq.	5	1 6	33 $\downarrow$	72.65	210
<b>EAST INVERNESS.</b>						
Glenleven (Chiaron) No. 3	Loch Leven Power Co.	...	...	1200 ?	73.14	...
" (Cam Bridge) No. 5	" " "	...	...	1260 ?	56.19	...
Spean Bridge (Spean Lodge)	Miss W. Davy	...	1 0	300 ?	58.85	259
Loch Lochy (Invergloiy)	Major G. J. Bailey	5	1 0	200	59.83	271
Invergarry	Mrs. Ellice	5	1 0	130 ?	61.29	...
§ Kingussie	Scot. Meteorological Soc.	5	1 0	828	26.59	...
D § Fort Augustus (St. Benedict's)	Rev. C. von Dieckhoff	5	1 6	68 $\pi$	41.96	228
D Alvey Manse	Rev. J. Anderson	5	1 0	760	26.82	202
Loch Ness (Killin, Whitebridge)	British Aluminium Co.	5	1 0	1200	44.40	...
D " " (Garthbeg)	" " "	5	1 0	645 $\uparrow$	35.84	202
" " (Foyers)	" " "	8	1 6	52	35.94	...
" " (Aberchalder)	" " "	5	1 0	700 $\uparrow$	31.08	...
D " " (Drumnadrochit)	Mr. Angus Grant	5	1 0	138 $\pi$	31.07	233
§ Inverness (High School)	Scot. Meteorological Soc.	8	1 0	114	28.29	193
<b>WEST ROSS &amp; CROMARTY.</b>						
Glenshiel (Cluanie Forest)	A. Cross, Esq.	5	0 9	800 $\uparrow$	86.53	...
D Kintail (The Glebe)	Rev. R. MacKenzie	5	0 10	30 $\pi$	51.97	238
Applecross Gardens	Mr. D. McCowan	5	1 0	70 $\pi$	58.57	...
Achnashellach (Glenuaig)	W. M. Christy, Esq.	5	1 0	1150 $\uparrow$	123.40	...
D § Glencarron	Mr. D. D. Munro	5	1 0	504	86.25	279
D Loch Torridon (Bendamph)	The Earl of Lovelace	5	0 5	20 $\pi$	90.92	262
D § Kinlochewe	Meteorological Office	...	...	...	80.67	236

DIVISION XVIII.—NORTH WESTERN COUNTIES—(*continued*).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain.	Days with .01 or more recorded.	
		Diameter	Height Above Ground.	Height Above Sea Level	1907		
		in.	ft.	in.	feet.	inches.	
W. ROSS & CROMARTY—(con.)							
Loch Vraon.....	Lady Fowler .....	8	0	7	750	60·57	...
Loch Drome .....	„ „ .....	8	0	7	850 †	58·02	...
Braemore House.....	„ „ .....	8	0	7	750	57·65	...
D Poolewe (Inverewe Gardens) ...	Mr. R. B. Campbell ...	5	0	6	20	55·64	213
D Ullapool (Inverpolly Lodge).....	G. Wotherspoon, Esq... 5	4	0		29	45·57	209
§ Stornoway .....	Meteorological Office ...	8	1	0	40	43·76	282
„ (Tiumpanhead) .....	Bd. of Northern Lights ...	...	...		170	47·60	186
„ (Butt of Lewis) . ....	„ „ „ .....	8	4	6	170	42·41	218
EAST ROSS & CROMARTY.							
Strathconan (Dalbreac)... .....	Mr. D. MacIver .....	5	1	0	450	32·08?	...
§ Strathpeffer .....	Meteorological Office... ..	...	...		210	29·04	216
D Fortrose (Raddery) .....	E. Gathorne Hill, Esq.. 5	0	7		300	31·04	194
Achterneed (Glenskiach) .....	G. Wotherspoon, Esq.. 5	1	6		...	35·13?	230
„ (Horsehill) .....	„ „ .....	5	2	6	...	35·47?	...
§ Evanton (Swordale House) .....	Scot. Meteorological Soc. 10	0	8		520	25·40	...
D „ (Novar Gardens).....	Mr. A. Edmondstone ... 5	0	6		...	36·66	242
D Alness (Ardross Castle).....	Mr. W. L. Minty .....	5	1	0	450 †	38·76	237
Fearn (Lower Pitkerrie) .....	R. Gordon, Esq., C E.. 5	1	0		95	21·85	...
Tarbatness .....	Bd. of Northern Lights 8	4	0		175	21·05	169

## DIVISION XIX.—NORTHERN COUNTIES.

## SUTHERLAND.

D Invershin .....	G. Young, Esq. ....	5	4	0	20 †	31·51	191
D Dunrobin Castle.....	Mr. D. Melville. ....	5	1	0	14 †	32·17	168
§ „ „ .....	M „ „ „ .....	3	0	5	13 †	29·05	...
§ Lairg .....	Scot. Meteorological Soc. ...	...	1	0	390	37·11	279
D Altnaharra .....	Rev. G. Mackay.....	5	1	0	300 †	34·66	182
D Bettyhill.....	Mr. Evander Mackay...	5	1	0	100	29·16	180
D Melvich .....	Mr. A. MacIntosh .....	5	1	0	...	30·26	164
Cape Wrath .....	Bd. of Northern Lights	7	4	8	400	30·75	202

## CAITHNESS.

§ Wick .....	Meteorological Office...	8	1	9	77	29·62	239
„ (Nosshead) .....	Bd. of Northern Lights ...	...	...	...	175	22·99	...
D Watten Station .....	Mr. J. Phimister .....	5	2	6	75 †	21·97	204
§ Reay (Sandside).....	Meteorological Office ...	8	1	0	56	31·04	250
D Castletown (The Clett) .....	Capt. J. Calder .....	5	1	0	73 †	31·20	264
Thurso (Holburn Head) .....	Bd. of Northern Lights	3	0	8	75 ?	30·53	218
Dunnet Head .....	„ „ „	3	1	0	246	23·27	...
Stroma .....	„ „ „	...	...	...	104	27·47	184
Pentland Skerries .....	„ „ „	7	3	9	170	19·93	...

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

STATIONS.	AUTHORITIES.	Rain Gauge.				Depth of Rain.	Days with .01 or more recorded.
		Diameter	Height Above Ground.		Height Above Sea Level	1907	
		in.	ft.	in.	feet.	inches.	
<b>ORKNEY.</b>							
Hoy (Cantickhead) .....	Bd. of Northern Lights	3	1	0	115	26·56	217
„ (Graemsay Sound, East=High)	„ „ „	5	0	4	115	35·31	175
„ ( „ „ West=Low)	„ „ „	8	4	3	55	33·42	...
§ Pomona (Deerness) .....	Scot. Meteorological Soc.	5	1	0	161	32·24	211
Hellyar Holm .....	Bd. of Northern Lights	3	1	0	60	28·99	197
Shapinsay (Balfour Castle) .....	Mr. W. Liddell .....	5	0	6	50	26·51	...
Sanday (Start Point) .....	Bd. of Northern Lights	3	1	0	80	26·71	...
Westray (Noup Head) .....	„ „ „	3	1	0	260	22·07	...
North Ronaldshay .....	„ „ „	3	0	4	140	32·39	188
<b>SHETLAND.</b>							
Fair Isle, South .....	Bd. of Northern Lights	...	...	...	104	30·16	...
„ „ North .....	„ „ „	...	...	...	262	27·89	...
§ Sumburgh Head (Dunroseness)..	Meteorological Office...	8	1	0	126	38·17	277
Bressay .....	Bd. of Northern Lights	3	1	0	105	44·28	184
§ Lerwick .....	Scot. Meteorological Soc.	5	1	0	30	37·40	232
Sule Skerry .....	Bd. of Northern Lights	3	0	6	113	21·57	..
§ Northmavine (Lochend) .....	Scot. Meteorological Soc.	...	...	...	...	44·17	274
§ Fetlar (The Manse) .....	Rev. J. A. Campbell ...	5	1	0	30 1	39·21	271
§ Unst (Halligarth) .....	Scot. Meteorological Soc.	...	...	...	...	38·23	310

## IRELAND.

## DIVISION XX.—MUNSTER.

STATIONS.	AUTHORITIES.	Rain Gauge.				Depth of Rain.	Days with $\cdot 01$ or more recorded.
		Diameter	Height above Ground.		Height above Sea Level	1907	
		in.	ft.	in.	feet.	inches.	
CORK.							
D Castletownshend (Glen Barrabane)	Sir E. B. Coghill, Bart.	5	3	0	25 L	40.38	180
D Ballineen (Kilmeen Rectory) ...	Rev. W. A. Lamb.....	5	1	6	370 T	51.85	233
D Dunmanway (The Rectory) .....	Rev. A. Wilson .....	5	4	6	205 T	58.40	243
D Bandon (Ardnacarrig) .....	G. A. Armstrong, Esq.	5	1	0	126 T	43.96	229
§ Roches Point .....	Meteorological Office...	8	1	9	32	39.60	268
§ Middleton (Ballynacurra) .....	" " .....	8	1	0	24	37.95	233
D Cork (Queen's College) .....	Prof. Alexander... ..	8	1	0	65 A	35.86	195
D „ (The Palace) .....	Rt. Rev. Bishop of Cork	5	1	0	40 L	38.51	214
D „ (Fernhurst Avenue).....	W. Miller, Esq.....	5	1	0	50 B	37.58	224
D Mallow (Summer Hill) .....	J. F. Williamson, Esq.	5	1	10	261 T	37.42	228
D „ (Longueville) .....	R. E. Longfield, Esq. .	5	1	1	310 T	39.52	240
§ Doneraile (Carker House).....	Meteorological Office...	5	1	6	267	37.36	163
D Mitchelstown Castle .....	W. D. Webber, Esq....	8	3	0	340 A	41.55	243
KERRY.							
D† Darrynane Abbey .. .....	D. O'Connell Esq.....	5	1	1	13 A	52.43	263
D† Waterville (Iveragh Lodge).....	R. J. Hughes, Esq. ...	5	1	0	86 A	41.07	253
Kenmare (Derreen) .....	Mr. W. Holbrow .....	5	1	0	74 L	62.15	232
D „ (Dunkerron) .....	Miss Palmer .....	5	1	6	70	60.48	227
§ Valencia (Glanleam) .....	Meteorological Office ..	8	1	0	32	52.22	250
† Cahirciveen .....	" " .....	8	2	0	62	50.78	268
§ Lough Caragh (Lickeen) .....	" " .....	5	1	0	60	71.74	256
Gap of Dunloe (Garrymeen).....	Ven. Archdeacon Wynne	8	3	0	75	89.00	...
D† Killarney (District Asylum) ...	E. W. Griffin, Esq., M.D.	5	0	10	178 T	46.90	255
WATERFORD.							
D Knockaderry .....	No. 1 M. J. Fleming, Esq., C.E.	5	4	0	248 T	39.38	195
D „ .....	No. 2 „ „ „	5	7	7	241 T	37.96	195
D Waterford (Whitfield Court) ...	Major H. Chavasse.....	5	0	7	67 A	39.19	212

## DIVISION XX.—MUNSTER—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain. 1907	Days with 40 or more recorded.
		Diameter	Height Above Ground		Height Above Sea Level	
		in.	ft.	in.	feet.	inches.
<b>WATERFORD—(con.)</b>						
D Waterford (Brook Lodge).....	C. P. Bolton, Esq., C.E.	5	1	0	104 T	39·89
D „ (Newtown) .....	E. A. White, Esq.....	5	1	0	28	36·23
§ „ .....	Meteorological Office ...	...	...	...	20 ?	35·91
D „ (Tycor) .....	M. J. Fleming, Esq. C.E.	5	0	7	171 T	38·70
D Portlaw (Mayfield).....	J. Anderson, Esq. ....	5	4	0	70	40·27
„ (The Gardens, Curraghmore)	Mr. D. Crombie .....	5	1	0	95	45·90
D Glenam [Clonmel] .....	Miss Grubb.....	8	1	4	80 T	40·34
D Sheskin [Carriack-on-Suir] .....	J. Ernest Grubb, Esq... 8	1	4	542 T	40·85	226
<b>TIPPERARY.</b>						
D Clonmel (Bruce Villa) .....	J. H. Grubb, Esq.....	5	1	3	110 T	34·66
D § Cahir (Bengurragh) .....	Roy. Meteorological Soc.	5	1	0	199	38·42
„ Abbey .....	Mrs. W. Rochfort .....	5	0	6	...	39·39
D Nenagh (Travertstown) .....	Miss Norris.....	5	1	0	...	45·45
„ (Kilboy) .....	The Lady Dunalley ...	8	1	0	326	44·63
„ (Castle Lough) .....	S. G. J. Parker-Hutchinson Esq	5	1	3	120 T	39·26
D „ (Highlands) .....	John Mounsey, Esq. ...	5	1	2	470 T	33·04
Roscrea (Timoney Park) .....	S. G. J. Parker-Hutchinson Esq	5	1	0	475 T	36·90
D Ballingarry (Gurteen) .....	P. Bicknell, Esq. ....	5	1	0	243 T	32·75
<b>LIMERICK.</b>						
§ Foynes .....	Meteorological Office...	5	1	0	104	42·67
D Limerick (Roxborough).....	Sir A. W. Shaw.....	8	1	6	108 T	37·61
„ (George Street) .....	J. Horan, Esq. ....	5	1	0	52 T	38·52
„ (St. Michael's School)..	Ven Archdeacon Wynne	8	2	0	50	38·40
<b>CLARE.</b>						
D Carrigaholt Castle.....	W. C. V. Burton, Esq.	5	1	0	16	39·23
D Killadysert (Paradise Hill) .....	F. B. Henn, Esq. ....	5	0	11	125 T	49·41
D § Newmarket-on-Fergus (Carrigoran)	W. W. A. Fitzgerald Esq	5	1	0	86 T	44·75
D Broadford (Hurdlestown).....	Colonel W. C. Bentley.	5	1	0	167 T	37·47
D Killaloe .....	F. Dudley Fletcher Esq CE	5	2	0	...	50·47
D Miltown Malbay .....	M. Molohan, Esq. ....	5	1	0	400 T	47·67
§ Inagh (Mount Callan) .....	Meteorological Office...	5	1	0	480	72·77?
D Lahinch (Moy House) .....	Miss Bowes.....	5	1	0	53	40·90
D Ennistymon House .....	H. V. Macnamara, Esq.	5	1	0	37 T	48·74
D „ Rectory .....	Rev. C. W. McDowell..	5	1	0	132	47·89

## DIVISION XXI.—LEINSTER.

## WEXFORD.

Wexford (Reclaimed Lands) ...	Mr. W. Thomas.....	8	1	3	—3 T	31·48	...
„ (Bann-aboo) .....	Col. J. R. Magrath ...	8	4	0	9	38·47	180
D Templeudigan (Ballindoney) ...	J. Budgen, Esq. ....	5	1	0	434 B	44·79	210
D Enniscorthy (Monart Rectory)...	Rev. W. F. A. Ellison..	5	0	11	150 T	37·70	231
D „ (Ballyhyland) .....	Mrs. Moffat.....	5	1	0	365 T	40·32	230



## DIVISION XXI.—LEINSTER—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain.	Days with '01 or more recorded.
		Diameter	Height Above Ground	Height Above Sea Level	1907	
		in.	ft. in.	feet.	inches.	
<b>KILDARE.</b>						
D Castledermot .....	Rev. M. Walsh .....	5	2 8	...	31·09	209
D Monasterevan (Moore Abbey) ..	Mr. C. Pilgrim .....	5	1 0	236 T	32·86	221
D Straffan House .....	Mr. F. Bedford .....	5	2 0	240 T	31·04	212
Clongowes Wood College ...	Rev. W. P. Hackett, S. J. ...	8	1 0	238 T	29·56	212
Kilcock (Knockanally) .....	W. C. Coates, Esq. ....	5	1 0	290 T	32·09	162
<b>DUBLIN.</b>						
Glen-na-Smoel (Water Works) ..	F. P. Dixon, Esq., C. E. ...	5	1 0	514 T	54·34	252
Carrickmines (Claremont) ..	John Read, Esq. ....	5	0 11	350	27·41	...
D Ballybrack (Streamville) .....	F. B. Falkiner, Esq. ....	5	1 5	30 B	27·37	203
D Killiney (Cloneevan) .....	R. O' B. Furlong, Esq. CB	5	1 0	250 T	25·94	203
D Foxrock (Hillside) .....	G. M. W. Hill, Esq. ...	5	1 0	245	30·73	227
† Blackrock (Charleville) .....	Miss C. Pim .....	5	0 6	260 ?	26·46	...
D † Stillorgan (White Cross) .....	Miss Muriel E. O'Sullivan ...	5	1 0	290	28·61	214
Dundrum (Lynton) .....	Dr. A. S. Goff .....	5	...	200 ?	28·36	219
† Kingstown (People's Park) .....	<i>Irish Times</i> .....	8	1 0	43 T	25·77	...
D „ (Harbour Yard) .....	R. D. Gray, Esq., C. E. ...	8	1 0	52 T	25·34	181
Rathmines (Terenure) .....	F. P. Dixon, Esq., C. E. ...	8	0 6	125 T	25·10	199
D „ (Leinster Road) .....	E. H. Cannon, Esq. ...	5	0 11	170	26·50	206
D † Dublin (Fitz William Square) ...	Sir J. W. Moore, M. D. ...	8	1 6	54 T	26·99	218
„ (Leeson Park) .....	Dr. Christopher Joynt ..	5	1 0	75 ?	27·37	217
† „ (Trinity College) .....	Meteorological Office ...	8	1 0	13 T	25·70	195
D † „ (Phoenix Park) .....	Maj. R. M. Buckland, R. E.	8	1 0	155 T	27·78	218
D Glasnevin (Roy. Botanic Gardens)	F. W. Moore, Esq. ...	8	1 0	55	29·46	225
Malahide (The Green) .....	T. Bateman, Esq. ....	5	1 0	25 T	25·35	193
D Lambay Island .....	Hon. Cecil Baring .....	5	1 6	20	22·59	191
† Skerries (Milverton Hall) .....	E. H. Woods, Esq. ....	5	1 0	190	25·98	199
D † Balbriggan (Ardgillan) ... No. 1	Capt. E. R. Taylor .....	5	1 0	211 T	26·37	197
† „ „ „ „ „ No. 3	„ „ „ „ „	5	1 0	211 T	26·40	...
<b>MEATH.</b>						
D Dunboyne (Stirling, Clonee) .....	Mr. J. Pilkington .....	8	1 0	231 T	27·25	209
D Summerhill House .....	Lord Langford .....	5	1 0	372 T	32·23	208
„ Athboy .....	C. P. Coghill, Esq. ....	8	1 3	227	34·10	202
D Kells (Headfort) .....	The Marquis of Headfort	10	5 0	227	30·49	225
D Moynalty (Westland) .....	W. A. Barnes, Esq. ...	5	1 2	260 T	37·70	240
D Drumconrath (Aclare House) (R)	Admiral Singleton, C. B.	10	2 6	170 T	38·30	249
<b>WESTMEATH.</b>						
D Athlone .....	F. Dudley Fletcher Esq. C. E.	5	2 0	128 T	27·59	199
D „ (Twyford) .....	J. P. Hodson, Esq. ....	5	5 0	188 T	32·18	238
D Moate (Coolatore) .....	H. A. S. Upton, Esq. ...	5	1 10	300	35·22	247
D Mullingar (Belvedere) .....	Mr. J. Bayliss .....	5	1 0	367 T	33·31	224
„ Rathowen (Cromlyn) .....	Miss C. M. Battersby ...	...	...	250	34·68	241
D Streete (Daramona) .....	late W. E. Wilson Esq. F. R. S.	10	1 0	276	36·58	269
D Coole (Mayne Rectory) .....	Rev. R. Butler .....	5	1 0	...	34·46	221



## DIVISION XXI.—LEINSTER—(continued).

STATIONS.	AUTHORITIES.	Diameter	Rain Gauge.		Depth of Rain.	Days with '01 or more recorded.	
			Height Above Ground	Height Above Sea Level	1907		
<hr/>							
LOUTH.		in.	ft.	in.	feet	inches.	
d Ardee (Lissrenny) .. .	T. F. Filgate, Esq.....	8	0	10	75 T	31·82	255
d Dundalk (Farndreg) .. .	J. Barton, Esq., C.E ..	5	1	6	90 T	32·45	239
d „ (Mount Pleasant) .. .	Telford Macneill, Esq CE	5	1	0	60 T	35·38	261
d Greenore .. .	T. Chambers, Esq., C.E.	5	1	0	4 L	34·34	213
<hr/>							
LONGFORD.							
d Ballymahon (New Castle).....	Col. W.H.King-Harman	4	2	5	250 T	33·96	233
d Cloondrah .. .	F Dudley Fletcher Esq CE	5	2	0	130	30·87	266
d Edgeworthstown (Currygrane Ho.)	late J. M. Wilson, Esq.	5	1	0	275 T	41·85	190
Longford .. . (R)	J. W. Gunnis, Esq. ....	...	4	0	180	37·40?	...

## DIVISION XXII.—CONNAUGHT.

<b>GALWAY.</b>						
d Woodpark [Scariff] .. .. .	R. F. Hibbert, Esq. ....	5	1 0	170 T	42·36	256
d Galway (Queen's College).....	W. Hare, Esq. ....	16	9 0	30	41·34	219
Ballinasloe .. .. .	W. H. Kempster, Esq.	5	1 6	160 T	37·24	...
d Woodlawn .. .. .	Mr. J. Laurie .. .. .	5	3 6	300 T	43·72	250
Ahascragh (Clonbrock) .. .. .	Lord Clonbrock, K.P....	10	5 6	200 T	36·59	...
d Clifden (Kylemore House) .. .. .	Mr. T. McNab .. .. .	5	1 0	105	74·51	221
Tuam (Castle Hacket) .. .. .	P. B. Bernard, Esq. ....	5	1 6	...	36·29	...
„ (Gardenfield) .. .. .	M H. Kirwan, Esq. ....	5	1 0	155 T	42·27	...
„ { „ } .. .. .	„ „ „ .. .. .	5	6 0	160 T	42·11	261
„ { „ } .. .. . weekly g.	„ „ „ .. .. .	5	1 0	155 T	42·02	...

<b>ROSCOMMON.</b>						
d Albert Lock [Jamestown].....	F Dudley Fletcher Esq CE	5	2 0	146 T	31·10	230

<b>MAYO.</b>						
d Cong (The Glebe) .. .. .	Rev. Canon R. Y. Lynn	5	1 11	112 T	46·39	256
Ballinrobe (Cranmore) .. .. .	Miss Knox .. .. .	5	0 9	99	47·01	...
d Westport (St. Helen's) .. .. .	Miss Kelly .. .. .	6	0 11	35 T	47·64	270
§ „ (Mallaranny) .. .. .	Meteorological Office...	5	1 0	120	62·74	...
d Newport (Burrishoole House) ..	H.M.Anketell Jones Esq	5	3 0	30	51·21	247
Doo Castle [Tobercurry] .. .. .	Mr. D. O'Dowd .. .. .	5	4 0	...	40·92	248
§ Blacksod Point .. .. .	Meteorological Office...	8	0 10	37	55·37	288
d Crossmolina (Enniscoe).....	J. Pratt, Esq.....	5	0 11	74 T	53·81	290

<b>SLIGO.</b>						
Ballymote (New Park) .. .. .	R. A. Duke, Esq. ....	5	1 6	228	42·60	...
d § Collooney (Markree Observatory)	J. R. Armstrong, Esq..	5	1 0	127 T	45·18	259
§ „ { „ „ } .. .. .	„ „ „ .. .. .	5	16 6	143 T	39·07	253

DIVISION XXII.—CONNAUGHT—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain.	Days with +01 or more recorded.	
		Diameter	Height Above Ground.		Height Above SeaLevel		1907
LEITRIM.		in.	ft.	in.	feet.	inches.	
D Ruskey .....	F Dudley Fletcher Esq CE	5	2	0	139 T	33·28	232
D Mohill (Drumkilla) .....	Rev. H. Justice .....	5	1	0	300 B	38·67	234
§ Carrigallen .....	Meteorological Office...	...	...	...	350 ?	39·55	241
Drumshanbo (Lough Allen Sluices)	F Dudley Fletcher Esq CE	5	2	0	169 T	36·29	167

DIVISION XXIII.—ULSTER.

CAVAN.							
Stradone House .....	Mr. J. Hart .....	5	1	0	280 T	35·89	...
D Killeshandra (Castle Hamilton)..	Major W. J. Hamilton.	5	1	0	251 T	32·75	191
D Belturbet (Cloverhill) .....	Mrs. Sanderson .....	5	1	0	202 T	31·89	228
D Ballyconnell House .....	Surg.-Gen.S.B.Roe, CB	8	1	2	196 T	39·72	235
FERMANAGH.							
Enniskillen (Portora) .....	W. N. Tetley, Esq. ...	5	1	0	251 T	38·37	...
D Belleek .....	J. Beacom, Esq.....	5	1	5	150 B	42·79	248
MONAGHAN.							
D Dartrey [Cootehill] .....	The Earl of Dartrey ...	5	2	6	265	35·47	196
D Monaghan (Rowantree House)...	Dr. J. Campbell Hall...	5	5	6	240	28·17	228
ARMAGH.							
D Bridge Street [Newry] .....	J.L.D.Meares, Esq.C.E.	5	0	9	22 T	40·23	242
D Tanderagee .....	J. Taylor, Esq. ....	5	1	6	198 T	33·54	213
D Armagh Observatory.....	Dr. J. L. E. Dreyer ...	8	1	0	210 T	31·57	236
D Loughgall (Manor House) .....	Mrs. Cope .....	5	1	0	205 T	31·10	223
D Lurgan (Belle Vue) .....	S. A. Bell, Esq.....	5	0	5	200 T	31·00	217
DOWN.							
D Warrenpoint (The Manor House)	Lt.-Col.A.W.Mansergh	8	1	4	40 T	35·08	209
D Newcastle (Tullymore Park) ...	Col. Hon. R. J. Jocelyn	5	1	0	276 T	50·58	205
D Rathfryland (Ballynagappoge)...	J. Smyth, Esq., C.E. ...	5	1	0	300	32·95	193
D Castlewellan (Lough Island Res.)	„ „ „	5	1	0	440 T	44·41	228
D Banbridge (Katesbridge) .....	A. A. Mulligan, Esq ...	5	1	0	230 T	31·13	205
D Seaforde .....	Major W. G. Forde ...	8	0	5	180 T	39·93	209
D Banbridge (Corbet Reservoir) ...	J. Smyth, Esq., C.E....	5	1	0	234	28·08	183
D „ (Milltown) .....	„ „ „	8	0	8	200 T	31·61	228
D Moyallon House [Portadown] ...	Miss M. K. Richardson.	5	0	5	130 T	30·14	219
§ Donaghadee .....	Meteorological Office...	8	1	6	40	33·20	223
ANTRIM.							
D Lisburn (Ulster Provincial School)	J. Woolman, Esq. ....	5	1	0	208	45·16	228
Stonyford (Belfast W. W.) ...	FW McCullough Esq.CE	5	1	6	437 T	38·07	230
D† Belfast (Queen's College) .....	Mr. G. Robinson ....	5	1	0	62 T	38·04	242
D† „ (Springfield) .....	T. G. Firth, Esq.....	5	1	0	150 T	41·67	264
† „ (Antrim Road).....	FW McCullough Esq.CE	5	7	0	144 T	36·45	223

DIVISION XXIII.—ULSTER—(*continued*).

STATIONS.	AUTHORITIES.	Rain Gauge.				Depth of Rain.	Days with .01 or more recorded.
		Diameter	Height Above Ground.		Height Above Sea Level	1907	
		in.	ft.	in.	feet.	inches.	
ANTRIM—( <i>con.</i> )							
Carrickfergus (Dorisland).....	FW McCullough Esq. CE	5	1	0	250 $\nabla$	37.46	237
„ (South Woodburn) .....	„ „ „	5	1	0	640 $\nabla$	44.61	250
„ (North „) .....	„ „ „	5	1	0	735 $\nabla$	45.95	253
„ (Copeland) .....	„ „ „	5	1	0	424 $\nabla$	34.68	246
„ (Lough Mourne)...	„ „ „	5	1	0	596 $\nabla$	43.54	259
d Ballymena (Harryville) .....	J. R. Williams, Esq....	5	1	5	150 $\uparrow$	44.66	263
d Broughshane (Quolie) .....	H. O'Hara, Esq., C.E..	5	1	4	893	49.34	263
§ Glenarm Castle .....	Meteorological Office...	8	9	0	45	47.38	191
Ballymoney (Balamore) .....	George Smyth, Esq. ...	5	1	5	50 $\uparrow$	35.06	259
Stranocum (Gardenvale) .....	A. McNeill, Esq. ....	5	1	0	160	43.26	...
d Bushmills (Dundarave).....	Sir F.E. Macnaghten, Bt	5	1	0	162 $\uparrow$	43.06	231
LONDONDERRY.							
Garvagh (Moneydig).....	H. R. Morrison, Esq...	5	1	0	121 $\uparrow$	41.55	...
d Londonderry (Creggan Res.).....	Mr. J. Hutchison .....	8	1	0	320 $\uparrow$	47.16	267
d „ (Dunruadh) .....	J. H. Welch, Esq. ....	5	0	6	130 $\uparrow$	47.70	245
Limavedy (Drenagh).. .....	M.M. McCausland, Esq.	5	1	6	80 $\uparrow$	40.60	256
d Bellarena.....	Dowager Lady Heygate	5	1	3	7	47.02	228
d Coleraine .....	W. R. Kennedy, Esq...	5	4	0	52	46.59	251
DONEGAL.							
d Killybegs (White House) .....	A. Brooke, Esq.....	5	1	5	30	64.83	262
§ „ (Faiafannan) .....	Meteorological Office ...	5	1	6	221	76.62	248
Lough Eske Castle.....	Mrs. H. G. White .....	5	1	0	170 $\uparrow$	64.28	244
d Convoy .....	Rev. Preb. Thompson...	5	0	9	150 $\uparrow$	51.96	253
d Letterkenny (District Asylum)..	E. E. Moore, Esq., M.D.	5	1	0	183 $\uparrow$	50.05	264
d Gweedore Hotel.....	A. Robertson, Esq.....	...	...	...	...	55.15	227
d Rathmullan .....	Col. T. E. Batt .....	5	0	9	75	48.20	263
Mulroy Gardens .....	<i>Gardener's Chronicle</i> ...	...	...	...	...	57.83	218
d Buncrana (Rockfort).....	T. Colquhoun, Esq. ...	5	1	0	55 $\uparrow$	42.52	230
Ardnadrean Rectory.....	Rev. W. S. Griffith ...	5	1	1	24 $\nabla$	50.57	...
d Dunfanaghy (St. Helen's).....	J. J. MacGrath, Esq....	8	1	0	55 $\uparrow$	48.92	259
d Fanad (Tamney Rectory) .....	Rev. A.C. Digby French	5	4	0	115 $\uparrow$	44.35	257
d Dunfanaghy (Horn Head) .....	C. F. Stewart, Esq. ...	5	1	0	163	47.22	268
d Lough Swilly (Carrablagh) .....	H. C. Hart, Esq. ....	5	1	0	130	52.20	269
§ Malin Head .....	Meteorological Office...	8	1	0	220	36.41	256

## RULES FOR SECURING UNIFORMITY IN RECORDING RAINFALL.

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**1. Selection of Site.**—A rain gauge should be placed on a level piece of ground, not upon a slope or a terrace, and certainly not on a wall or roof. It should be at a distance from every object higher than itself, and should never be nearer to a wall or house than a distance equal to the height of that object, nor nearer to a growing shrub or tree than a distance equal to twice that height. Care should be taken to keep flowers or vegetables away from the gauge for a distance of at least three feet all round. If a perfectly open site cannot be obtained, shelter is least harmful on the north-west, north and east; but the exposure to south-west and north-east should always be free. The height above sea-level should be determined, if possible, by levelling from the nearest bench mark. The approximate height may be easily ascertained in most cases by reference to the maps of the Ordnance Survey. A specific name should be selected by each observer for his station, and the exact position with regard to the nearest railway station, or in villages to the parish church, should be stated, so that the site of the gauge may be correctly marked on a map.

**2. Mountain and Moorland Sites.**—Care should be taken that mountain or moorland gauges are not unduly exposed to the sweep of the wind. A level patch of ground or a very slight hollow should be selected, and a turf wall, about 2 feet high, surrounding the gauge at a distance of from four to six feet is recommended.

**3. Placing the Gauge.**—The gauge should be planted in the earth and fixed by stakes or placed in a hole which exactly fits it in a block of cement. It should be fixed so firmly that it will neither be blown over nor tilted by the strongest wind, and it is best to be surrounded by short grass. The gauge should occasionally be examined, and repaired if any leakage or other defect is detected.

**4. Height above Ground.**—The funnel of a rain gauge should be set exactly level, and at a height of 1 foot above ground. If the gauge is surrounded by long grass, or likely to become so, the height may be as much as 1 ft. 6 in., but it should never be more.

**5. Change of Gauge.**—When an old-established gauge has to be discontinued for any reason, a new gauge should be established on a proper site one year, or, if possible, two years, before the old one is removed, so that the readings of both may be compared and

the continuity of the record ensured. This rule does not apply to the substitution for an old gauge, which has become defective, of a new gauge of the same size and pattern on the same site. It is most convenient to start a new gauge on January 1st. The fact of a change, with date, distance and direction from former site should be reported when it is made.

**6. Absence of Observer.**—An assistant should, if possible, be trained to measure the rainfall in the absence of the Observer. When no such provision can be made it should be arranged to have the gauge visited at the usual hour, and the water bottled, corked up and labelled to be kept until the Observer returns. At the worst the gauge may be left untouched until the Observer's return, and the accumulated amount entered with a note of the number of days which elapsed.

**7. Second Gauges.**—It is advantageous to have two gauges, one of them capable of holding at least 8 inches of rain. This should be read weekly or monthly as preferred, but in either case on the 1st of each month. A thorough check is thus kept on accidental errors in the readings of the daily gauge. A separate record must be kept of each gauge; the mean of the two should never be entered.

**8. Recording Gauges.**—When the expense is not prohibitive, Observers are strongly recommended to have a self-recording rain gauge as well as an ordinary gauge for daily reading. Such a gauge should preferably record in a continuous line, so that the duration of light rainfall may be accurately measured. Observers are warned that a self-recording rain gauge is not a labour-saving machine. Even the best patterns require frequent attention and careful handling if they are to yield results worth having. No general rules can be laid down as each pattern of recording gauge has its own advantages and drawbacks; but one piece of advice applies to all, viz:—Keep the recording gauge for measuring the duration of rainfall, and in every case check the amount of rain by a Snowdon gauge placed alongside.

**9. Hour of Observation.**—Rainfall should be measured at 9 a.m. daily, and the amount entered against the date of the previous day. Thus, the figure to be entered opposite the 15th is the amount measured at 9 on the morning of the 16th.

**10. Reading the Rain Glass.**—In measuring rain by means of the graduated glass the Observer must pour the water carefully from the bottle or inner can into the glass. If the glass is not filled the reading should be taken by holding it upright or setting it on

a level slab, then bringing the eye opposite the level of the water so as to fix the nearest line on the scale to the water surface, not necessarily the line next above or the line next below the surface, but the one of these which is nearer. Each division represents one-hundredth of an inch. If there is more water in the gauge than can be measured at once, the glass should be filled up to the  $\cdot 50$  mark, emptied into a jar, and filled up again as often as necessary, counting the number of times, and finally measuring the residue in the usual way. The water in the jar may be measured again roughly to make sure that no mistake has been made in counting the number of half-inches. The amount should be written down before the water is thrown away. Every measuring glass should have a certificate.

**11. Small Amounts.**—If the gauge contains less than one-hundredth ( $\cdot 01$ ) of an inch but more than half that amount, it should be entered as  $\cdot 01$ , while if there is less than half that amount the few drops may be thrown away and the day entered as if no rain had fallen. A rain glass which is conical below, as in the “Camden” pattern, allows this to be very easily determined. All water found in the rain gauge is to be treated as rain, even though it comes from melted snow, dew or mist.

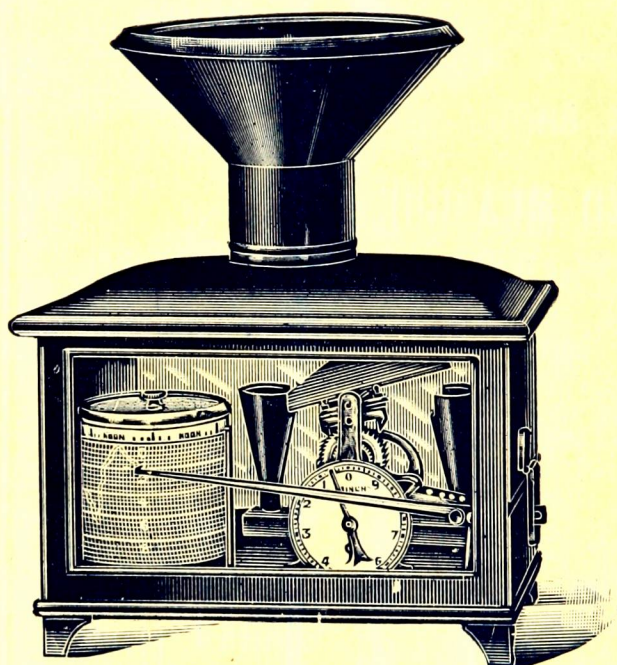
**12. Mode of Entry.**—The result is always to be entered in hundredths of an inch, remembering that a tenth of an inch equals 10 hundredths and an inch 100 hundredths. The word “hundredths” is not to be written, but a decimal point is to be put before the last figure but one, thus,  $\cdot 10$ ,  $1\cdot 00$ . If there is only one figure a cypher must be placed before it, thus 2 hundredths is written  $\cdot 02$ . Vulgar fractions should never be employed. The record will be clearer if days without measurable rain are indicated by drawing a short line. If there is any doubt about a figure, a ? should be placed before it and an explanatory note added.

**13. Snow.**—To measure snow in a Snowdon rain gauge all that is necessary is to melt the snow in the funnel by warming it before a fire and measure the resulting water as if it were rain. Whenever a considerable fall of snow occurs an attempt should be made to estimate the amount by ascertaining with a foot-rule the average depth of snow over a considerable area (so as to make allowance for drifting), and taking one-twelfth of that depth as the equivalent amount of rain. Care must be taken in this case to measure only the fresh-fallen snow for each day ; but the method though useful is a rough one at best.

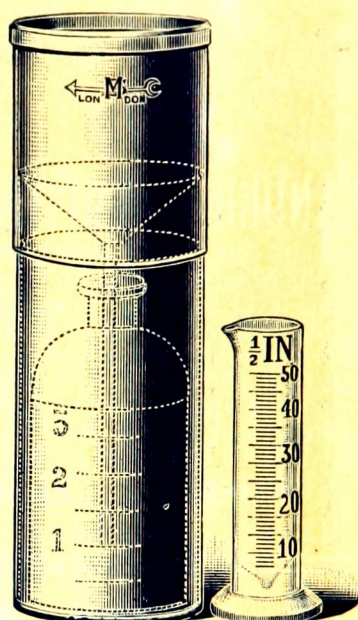




TRADE  MARK.



**RECORDING RAIN GAUGE.**

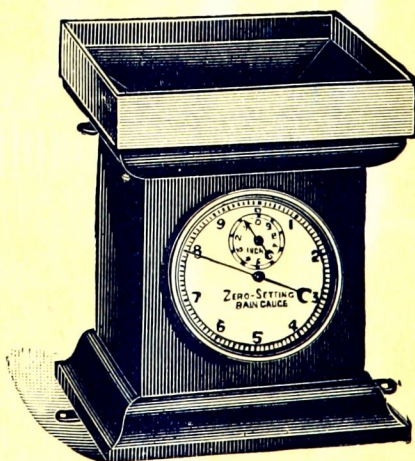


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BAROMETERS.

— ♦ —  
BAROGRAPHS  
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