

FRANKLEN GEORGE EVANS, M.R.C.S.,  
F.R.MET.SOC., F.R.A.S.

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*Born, 30 Oct., 1826; Died, 17 Jan., 1904.*

BY C. T. VACHELL, M.D., AND PEPYAT EVANS,  
B.C.L., M.A.

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FRANKLEN GEORGE EVANS was not an original member of the Cardiff Naturalists' Society, probably because while actively engaged in general practice over a scattered country district he felt the difficulty of attending meetings; but it was inevitable that he should eventually join a body whose work appealed to him strongly. For many months before the formation of the Society he had devoted such leisure as he had to scientific work outside his profession, and had indeed forestalled the Society in what was necessarily its earliest mission—the endeavour to pave the way for more special work, by fostering in the public a taste for scientific knowledge, and by encouraging that systematic and habitual observation which is the basis of all scientific work. This he had done by means of signed articles on various scientific subjects contributed to the *Cardiff and Merthyr Guardian*. In particular he had published monthly and annual reports describing the character of the weather and giving summaries of the daily readings which he had begun recording at Tynant on January 1, 1866. To these he added, as was his custom, notes on the natural history of the district, and especially phenological observations. Some of his figures for the period from September, 1867 (the date of the formation of the Society), to August, 1868, appear at the end of Vol. i. of the Transactions.

In this connection two sentences may be quoted from a letter dated January 30, 1869, written to him by William Adams, the founder of the Society: "I wish you would join us, then instead of our *cribbing* your meteorology you could give it on your own account as a member. . . . Some members like you

must join, so as to get up what I much desire to see—a good Museum in Cardiff.”

Thus cordially invited, it is not surprising that later in the same year he joined a body with which he was so fully in sympathy. Once a member he threw himself heart and soul into its work, attending both evening and field meetings with a regularity which would have done credit even to a man of considerable leisure. To those who worked with him in those early days, the most striking points about him were perhaps his scientific ardour, his catholicity of taste, and his keen concern for the welfare of the Society.

These characteristics led him to devote study and thought to a great variety of subjects upon which he read papers before the Society (a list is appended); and also to speak briefly and lucidly in the discussions which followed the papers of others. In both respects he was performing an important service; for a young Society must educate the public, awaking interest and winning recruits by slow degrees, avoiding the danger of specialising too much, or of forming “sections” too soon.

In conjunction with other members of the Society, and especially its President, William Adams, Franklen Evans helped forward the Fine Art and Industrial Exhibition of 1870, organized chiefly with the object of obtaining funds for the Museum, and largely successful both in attaining that object and in stimulating interest in Art, Science, and the applications of both.

The promotion of so energetic a member was naturally rapid. He was appointed a Vice-President in 1870, and in 1874 was elected President of the Society in succession to Mr. William Adams, delivering his presidential address at a *Soirée* given at the Town Hall, Cardiff, on February 2nd, 1875, by him and by Mrs. Franklen Evans—herself, until her early death, a member of the Society, and keenly interested in its success.

But however great his interest in other subjects, his devotion to meteorology was constant and unswerving; and just as William Adams was the founder of the Society, so Franklen Evans was the founder of its meteorological department. For twenty-six years, beginning with 1869 and ending with 1896, he collected

and tabulated the rainfall returns from the observers throughout the Society's field, besides giving a detailed weather report and a summary of the other readings (barometer, temperature, humidity, wind direction, etc.), which he kept first at Tynant and afterwards at Llwynarthan, assisted by members of his family and household.

It is worth while to quote here a passage from the first of his annual reports, read February 3, 1870 :—

“In conclusion, gentlemen, I may be permitted to say that though this is my first report to the Society I trust that it may by no means be the last. Hitherto I have made observations as a lonely sparrow on the housetop, but my future *notes* will be as a member of a community with every variety of *note* and plumage. I shall no longer gather meteorological honey as a solitary specimen of the order Hymenoptera, but as a busy unit in this great industrious hive of working bees.”

For the first eight years or so he contributed to the Transactions not only the reports read annually before the Society, but written abstracts giving details of each month. As these appear in their order in print, and are indexed in Vol. xvii., the references are not repeated in the list which follows. Thus his detailed reports (including those published in the *Cardiff and Merthyr Guardian*) cover the time from January 1, 1866, to December 31, 1896, a period of thirty-one years. The record at Llwynarthan was continued until September, 1904.

It is worth while trying to trace the history of rainfall and other weather observations in the Society's field. That pioneer of systematic and uniform rainfall observation, G. J. Symons, began his series “British Rainfall” by the publication in 1862 of a thin volume dealing with the rainfall of 1860 and 1861. “British Rainfall” gives no return from our district for either of these years, nor yet for the year 1862.

But at this time two gauges had long existed in the Society's field, namely, that kept by Mr. Evan David at Fairwater (1824–1843, Trans. Vol. i. p. 45; 1844–1863, Trans. Vol. xv. p. 100), and by Mr. Edward David, first at Radyr Court and afterwards at The Hendre (1824–1843, Trans. Vol. xv. pp. 98, 102).

The interest and importance of these observations lies in the fact that they are the only records for the district before 1859. For purposes of comparison, it is true, the value of the Fairwater record is impaired by the fact that the receiving funnel of the gauge was at a height of 34 feet above the ground, and that it was on a "dumb chimney," the relation of which to the other buildings is not stated. Apparently also the graduation of the measuring tube was not tested either by an instrument-maker or by comparison with a standard gauge. But these were days when the importance of uniformity in such matters was not insisted on. As regards the Radyr Court and The Hendre record, the account in the Transactions does not state where the one set of observations ends and the other begins. But this omission could probably be supplied. In any case, the records are valuable, both from the length of time they cover and also from the fact that they are the only known observations in our district before 1859. They do not seem to have been published until they appeared in the Transactions (*loc. cit.*).

In 1859 began a record which still continues, and it may be hoped will continue indefinitely—that at the Ely Pumping Station of the Cardiff Waterworks. The annual total for 1865 appeared in "British Rainfall," but the earlier figures do not seem to have been printed until January, 1905.

In 1860 Mr. James G. Wood began his record at Chepstow.

For the years 1863 and 1864 the late Dr. Charles Vachell made rainfall observations in Charles Street, Cardiff. In this case also the position of the gauge was abnormal, no doubt from the exigencies of a confined situation, being in the former year 10 feet, in the latter 8 feet, above the ground. The annual totals were published in "British Rainfall."

From this time on, the multiplication of gauges in the eastern part of Glamorgan and the western part of Monmouthshire was continuous and rapid. Through the courtesy of Dr. H. R. Mill we are able to give the time when the following gauges began :

Those of E. W. Scale (Troedyrhiw), Dr. D. M. McCullough

(Abergavenny), and H. Soper (Blaina, Tredegar), in July, September and December, 1863, respectively. In January, 1864, those of the Rev. D. Charles, Abercarn, and of the Lisvane Reservoir (Cardiff Waterworks); though no readings of the latter appear to have been published until the total for 1866 appeared in "British Rainfall." In 1864, June, G. W. Nicholl, the Ham. In 1865, January, Messrs. Laybourn (Isca Foundry), F. J. Mitchell (Llanfrechfa Grange) and Henry Clay, junr. (Chepstow). Later in 1865 Phineas James (Ebbw Vale) and Robert Jordan (Sirhowy Iron Works). In 1866 H. G. Bowen, Springfield House, Cardiff; William Bowen, Tintern Abbey; Dr. T. J. Dyke, Merthyr; Franklen Evans, Tynant; and Evan Jones, Aberdare; also a gauge at the Town Hall, Cardiff. In 1867, January, S. R. Bosanquet, Dingestow. In 1868, April, William Adams. In 1869, January, W. T. Lewis, Aberdare. In 1869, June, W. T. Lewis, Treherbert.

This rapid increase in the number of gauges and observers is striking, and must be attributed to Symons's publications referred to above. Moreover, in the earlier sixties the same indefatigable worker was constantly communicating to the columns of *The Times* letters containing interesting particulars both as to details of rainfall observation (comparison of recent figures) and careful calculations of averages deduced from a long series of years. In these letters he was constantly urging the importance of preserving old rainfall registers, even if imperfect; of beginning new registers; and of sending in all available material for tabulation and publication (see especially *The Times*, December 23, 1864, May 16, 1865, and December 2, 1865. The letter of May 16 was reprinted and circulated).

There seems to be no good reason to doubt that it was Symons's enthusiasm and his persistence in calling public attention to his work that led so many, Franklen Evans among them, to become rainfall observers and recorders, the enthusiasm of these new workers bringing in turn further recruits to Symons's army.

The connection of the rainfall observations with the local

water supply is of such importance and general interest that this notice would be incomplete without some reference to it.

When the Cardiff Waterworks undertaking began in the early fifties there was no need for calculation of the supply to be expected from a given area: the water was pumped from the river at Ely through filter beds to the reservoirs at Penhill, and the population to be supplied was small.

When powers were obtained in 1860 for a new reservoir at Lisvane (constructed 1863) there was as yet very little material on which to base an estimate of the size of a reservoir, and at that time it may have been thought that the storage secured was so ample that precise calculation was unnecessary.

But in 1878, when the Llanishen scheme made it once more necessary to go to Parliament, the state of things was very different. At this time there were in the Society's field a number of gauges in various positions and various altitudes, and most of the registers had been kept continuously for ten years or more; so that they afforded valuable information as to the amount and the distribution of rainfall in the district.

When the still larger Taff Fawr scheme of the Cardiff Corporation was before Parliament in 1884, G. J. Symons set himself to the difficult problem of estimating the rainfall on a gathering ground where no gauge existed or had existed, from the results given by surrounding gauges. Of these, thanks to the public spirit of observers and the organising work of Franklen Evans and others, there were several—mostly in the Society's field.

Later, when this scheme was carried out, science, which had given its aid to the practical engineer, now received a return from him in the shape of rainfall readings of great interest, as being from gauges at greater altitudes than any previously existing in the district—many of them purposely planted in positions calculated to throw light on the problems of rainfall distribution in relation to the configuration of the ground.

Only a word need be said as to Franklen Evans's work in astronomy. He did not become an observer until the early

eighties, when his miscellaneous contributions to the Society's meetings were becoming less frequent; and the chief result (so far as the public are concerned) of his taking up practical astronomy is that he eventually gave his telescope to the Borough of Cardiff.

## CONTRIBUTIONS TO THE TRANSACTIONS

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