

CORRESPONDENCE.

‘DEUTOZOIC.’

SIR,—I can extract no other meaning from Mr. Goodchild’s defence of the term ‘Deutozoic’ than this: that when next I am in a geological difficulty—say, about the age of the earth—I should refer the question to any eminent Professor of Theology, and submit to his decision.
T. G. BONNEY.

CREEP-FOLDING IN VALLEY BOTTOMS.

SIR,—When I read in “*Water*,” vol. vi, p. 491, an account of a paper by Professor Boyd Dawkins dealing with the effect of relaxation of pressure in causing folds in the rocks at the bottom of valleys I thought I had come across what was no more than a reporter’s error, repeated in the *GEOLOGICAL MAGAZINE*, December, 1904, p. 618. Since, however, an almost identical statement appears in the Proceedings of the Manchester Lit. and Phil. Soc., vol. xlix, p. 8, I presume that it correctly represents Professor Dawkins’s views on the subject.

The folding in the strata at the bottom of the Don and Derwent Valleys is held by the author to be “analogous in every particular” to ‘creep’ in coal-workings; and he goes on to say: “This may be studied in any coal-pit where there is a superincumbent pressure, say, of more than 1,000 feet.” Now, the maximum pressure available at the Howden and Derwent dams is due to no more than 900 feet; moreover, this maximum pressure is only reached at a distance of $1\frac{1}{2}$ miles from the valley, and is increasingly reduced as the latter is approached.

It cannot be contended that the removal of “at least 9,700 feet” of rock from above the site of the dams has had anything to do with the folding in the valley bottom, and yet it is difficult to see for what other purpose these figures are introduced except to lend support to the theory.

There is not the slightest evidence to show that the Derwent Valley was ever deeper than it is now; but if Professor Dawkins’s figures mean anything they imply a *valley 9,700 feet deep with the stream on its present bed.*
J. ALLEN HOWE.

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OBITUARY.

PROFESSOR JOSEPH P. O’REILLY, C.E., M.R.I.A.

BORN JULY 11, 1829.

DIED JANUARY 6, 1905.

By the death of Joseph P. O’Reilly, lately Professor of Mining and Mineralogy at the Royal College of Science, Dublin, yet another link with the older generation of Irish geologists and archæologists has been severed, as also the ties of friendship which existed

between him and all those who came in contact with his charming personality. To none will the news of his death come with greater feelings of regret, than to his former pupils, amongst whom the writer is glad to be able to number himself.

As a teacher, Professor O'Reilly possessed the comparatively rare distinction of being able to make lectures on Mineralogy interesting, as well as instructive. A strong advocate of the use of the blackboard for demonstration purposes, he largely availed himself of this method of teaching, for which indeed his really fine draughtsmanship eminently fitted him. The beautiful perspective representations of the more complicated crystal forms, which he drew with surprising rapidity and accuracy on the blackboard, are not likely to be ever forgotten by those who, under his ægis, were first introduced to the science of crystallography. His concern for his students did not end with the lectures; he took a personal and kindly interest in each, and was ever ready with his help and advice both during and after their college career.

The fifth son of the late Thomas Reilly, Taxing Master in Chancery in Dublin, Professor O'Reilly was born in the town of Monaghan in 1829. Owing to the absence of facilities in Ireland, at that time, for learning the science of civil engineering, he went to Paris and studied for some years, at the Ecole Centrale des Arts et Manufactures, obtaining the Engineering diploma of that institution in 1855, and incidentally getting his first instruction in geology and mineralogy.

In 1856, he obtained the appointment of engineer to a French mining company, then engaged in exploiting the newly discovered zinc-mines of Santander in Spain. Later he was engaged by a second French company, who were working the deposits of sulphate of soda in the Jarama valley near Madrid. Returning to Ireland in 1863, he published the results of his geological investigations in the foregoing districts, in a series of papers written in conjunction with the late Dr. W. K. Sullivan. He became subsequently connected with the Mining Company of Ireland, at the time when the Silvermines district in Tipperary was being extensively worked. In 1868 he was appointed Professor of Mining and Mineralogy at the Royal College of Science for Ireland, a position which he held till the year 1899. In addition he held the post of Secretary in the same college from 1881 to 1894. He was also President of the Royal Geological Society of Ireland, in the year 1885; Vice-President of the Royal Irish Academy from 1886 to 1889, and again from 1901 to 1904; and acted as extern examiner in geology to the Royal University of Ireland, for several years.

His published contributions to the literature of Irish geology, mineralogy, and archæology were very numerous, altogether some sixty in number. A full bibliography will be given in the *Irish Naturalist* for March, and hence they need not be individually mentioned here. His geological papers dealt mainly with earthquakes and volcanic phenomena, and also with rock-joints, and their influence on the direction of coastlines. These papers, which were

usually voluminous, betray an immense amount of painstaking work, such as few would care to undertake. As an instance, his catalogue of British and European earthquakes, which covers some 250 quarto pages, in the *Transactions of the Royal Irish Academy* (vol. xxviii) may be mentioned. After retiring from his professorship in 1899, his papers were mainly on archæological subjects, and were chiefly descriptive of some of the older ecclesiastical remains in the neighbourhood of Dublin.

Since the year just mentioned, no less than ten papers were written and published by him; he was, in fact, working up to and actually on the very day of his death, which took place suddenly on the evening of the 6th of January of the present year.

HENRY J. SEYMOUR.

THOMAS WILLIAM SHORE, F.G.S.

BORN APRIL 15, 1840.

DIED JANUARY 15, 1905.

WE regret to record the death of Mr. T. W. Shore, who for many years was Curator of the Hartley Institution at Southampton, and one of the founders and Organising Secretary of the Hampshire Field Club. Mr. Shore was much interested in local geology and archæology, and was one of the secretaries of Section C of the British Association at the Southampton meeting in 1882, for which meeting he prepared the local guide.

He was the author of articles on "The New Dock Excavation at Southampton," with J. W. Elwes (1889), "The Clays of Hampshire and their Economic Uses" (1890), "Springs and Streams of Hampshire" (1891), "Hampshire Mudlands and other Alluvia" (1893), "Hampshire Valleys and Waterways" (1895); all published in the Papers of the Hampshire Field Club.

On retiring from the Hartley Institution, he settled at Balham, near London, and devoted himself more especially to antiquarian work. He assisted in founding the Balham Antiquarian Society, of which he was Secretary, and he was also Secretary of the London and Middlesex Archæological Society.¹

PROFESSOR GEORGE BOND HOWES, LL.D., F.R.S.

BORN SEPTEMBER 7, 1853.

DIED FEBRUARY 4, 1905.

BIOLOGICAL science has sustained a heavy loss by the death of Professor G. B. Howes, whose high scientific attainments, coupled with an exceeding amiability of character and ever ready disposition to assist those who needed his help in their work, had endeared him to a wide circle of friends and students.

George Bond Howes was born in London in 1853; he was the eldest son of the late Thomas Johnson Howes, and was educated at a private school. He entered the Biological division of the Royal School of Mines in 1874 under Professor Huxley. In 1881 he was

¹ We are indebted for some of the above particulars to the *Times*, Jan. 17, 1905.