the Wednesday morning. This enabled me to get a page of abstract into the Report. The double rebuff was too marked to be mistaken. I found the repugnance to the subject as strong at the Geological Society as at the British Association, and with much regret was forced to drop it. At the time I had a yacht, an experimental tank, a moorland river, and a mill leat; and all the experts whose opinion was of value were favourably disposed towards my work, including Sir G. G. Stokes, Lord Rayleigh, Dr. Sorby, and Mr. Gwyn Jeffreys.

At the Bradford meeting, in 1900, I was interested to hear Dr. Vaughan Cornish state publicly from the platform of Section C that he had only tripped me up once. And that happened to be a quotation and an ambiguously worded passage. It was a trip more than a stumble.

I am not at all surprised at the opposition I encountered in petrological work. That was simply a case of amateur methods of research *versus* professorial. But the opposition to my work on the subject for which I was elected to the General Committee, and which my judges were scarcely qualified to condemn, I have never in the least understood. The standing difficulty is this, that some of the most important textbooks are misleading, and, indeed, I very really hear anyone touch on the subject without their running foul of first principles. In 1882 I submitted a paper to the Royal Society on Ripple-mark. It was officially suggested to me that I had not considered Dr. Sorby's work. Well, Dr. Sorby had supplied me with a sheaf of his reprints, and I did not want to appear to be criticising his observations on 'ripple-drift,' when I was investigating another cause of ripple-mark, viz. wave-action. There are three great principles which have to be considered, viz.: (1) the *drifting* of sand by rivers and currents, as studied by Dr. Sorby; (2) the conveyance of sediment in *suspension*; (3) the disturbance of the already *deposited* sediment by waves of different sorts; and (4) the *redistribution* of this sediment by a great variety of currents. I rejoice to see Professor Blake's papers, as they show that geologists are now alive to the great importance of this subject, a subject which is illustrated by every fragment of sedimentary rock cracked under the geologist's hammer.

It is scarcely worth while to refer to my own writings, as they are fragmentary and scattered almost beyond my own knowledge. I found that if I had got hold of a really important fact, that was just the fact which, being unorthodox, would fail to get into print. I happened to have the monopoly of a new source of information, an experimental tank; so my various judges were sceptical, and my judges were all-powerful.

A. R. Hunt.

OBITUARY.

WILLIAM TALBOT AVELINE, F.G.S.

Born 1822. Died May 12, 1903.

The death of W. T. Aveline, at the age of 81, has removed one of the earliest field-geologists attached to the staff of the Geological

Survey under De la Beche. He was appointed an Assistant Geologist in 1840, and after working for a short time in Somerset on the Mendip Hills, he was transferred to South Wales, and surveyed parts of Pembrokeshire. Thence he worked through other counties into North Wales, across the borders into various portions of the West of England, and into the Midland counties as far as Nottingham.

In 1867 Mr. Aveline was appointed District Surveyor to take charge of the mapping of the Lake District, and he resided at Kendal until his retirement in 1882, when he went to live at Wrington in Somerset.

All formations, from the very oldest up to the Eocene, came from time to time under notice, but his chief work was among the Silurian and older rocks. Although painstaking and accurate in his mapping, he went but little beyond the actual survey of the ground. He entered neither into the petrology nor palæontology of the rocks; nor was he given to writing. The maps and sections of the Geological Survey form the chief monument of his labours; and it was in recognition of these, that he was awarded the Murchison Medal in 1894 by the Council of the Geological Society. His portrait will be found in Sir Archibald Geikie's Memoir of Sir A. C. Ramsay (1895).

The following is a list of his published memoirs and papers:—

GEOLOGICAL SURVEY MEMOIRS.

1858. "Geology of parts of Wiltshire and Gloucestershire." (With Ramsay and Hull.)
1860. "Geology of part of Northamptonshire."
1861. "Geology of parts of Northamptonshire and Warwickshire."
1861. "Geology of the country around Nottingham." 2nd ed., 1880.
1861. "Geology of parts of Nottinghamshire and Derbyshire." 2nd ed., 1879.
1863. "Geology of part of Leicestershire." (With Howell.)
1872. "Geology of the country around Kendal, Sedbergh, Bowness, and Tebay." (With Hughes.) 2nd ed., revised by Strahan, 1888.
1872. "Geology of the neighbourhood of Kirkby Lonsdale and Kendal." (With Hughes and Tiddeman.)
1873. "Geology of the southern part of the Furness District in North Lancashire."
1880. "Geology of parts of Nottinghamshire, Yorkshire, and Derbyshire."

OTHER WORKS.

1848. "Sketch of the Structure of parts of North and South Wales" (with Ramsay): Quart. Journ. Geol. Soc., vol. iv, p. 294.
1854. "On the 'Caradoc Sandstone' of Shropshire" (with Salter): ibid., vol. x, p. 62.
1866. "The Longmynd and its Valleys" (letter): GEOL. MAG., Dec. I, Vol. III, p. 279.
1869. "On the Relation of the Porphyry Series to the Skiddaw Slates in the Lake District" (letter): ibid., Dec. I, Vol. VI, p. 382.
1872. "On the Continuity and Breaks between the various Divisions of the Silurian Strata in the Lake District": ibid., Dec. I, Vol. IX, p. 441.
1876. "Absence of the Llandovery Rocks in the Lake District" (letter): ibid., Dec. II, Vol. III, p. 282.
1876. "The Silurian Rocks of the Lake District" (letter): ibid., p. 376.
1876. "The Graptolitic Mudstones of the Lake District" (letter): ibid., p. 527.
1877. "The Magnesian Limestone and New Red Sandstone in the neighbourhood of Nottingham": ibid., Dec. II, Vol. IV, p. 155.
1877. "The Relation of the Permian to the Trias" (letter): ibid., p. 380.
1893. "The St. Bees Sandstone" (letter): ibid., Dec. III, Vol. X, p. 87.
1899. "Geology of the country around Carlisle" (letter): ibid., Dec. IV, Vol. VI, p. 335.