

OBITUARY.

Edwin Tulley Newton.

BORN, MAY, 1840.

DIED, 28th JANUARY, 1930.

Full of years and honours, and beloved by all who knew him, Mr. E. T. Newton passed peacefully away on 28th January at Canonbury, London. Until the end, though frail in body, he retained his faculties and interest in life, and his last paper on a bone of a pelican from the Yorkshire peat appeared in *The Naturalist* so recently as June, 1928.

Newton was born at Islington in May, 1840, and after leaving school received some manual training, which stood him in good stead in his palaeontological work of later years. He attended Huxley's lectures at the Royal School of Mines in Jermyn Street, and in 1865 became assistant to Huxley, who was at that time Naturalist to the Geological Survey. He soon displayed originality and capacity for research, and throughout the whole of his official career he accomplished much more than his routine duties and made many important contributions to palaeontology. His earliest original observations were on the structure of certain bituminous coals, and like all English geologists of his and later generations he published his first paper in the *GEOLOGICAL MAGAZINE*. This was in 1875, when he described the masses of spores in "Tasmanite" and other bituminous coals.

After Huxley's retirement from the Survey, Newton still remained as assistant palaeontologist, and in 1882, after Robert Etheridge's removal to the British Museum, he was appointed palaeontologist as colleague of George Sharman. His chief official duty was then the naming of fossils collected by the surveyors and the preparation of lists to accompany the descriptions of the maps. He dealt with all groups and wrote occasional notes on varied collections, but his chief interest was in the fossil vertebrates, and most of his original contributions to science related to these.

Newton began his researches on fossil vertebrates with the fishes of the English Chalk and other Cretaceous formations, and summarized his results in 1878 in the second edition of Dixon's *Geology and Fossils of Sussex*, and in his Survey memoir on *The Chimaeroid Fishes of the British Cretaceous Rocks*. Henceforth, he took most interest in the fragments of vertebrates found in the Pleistocene and Pliocene formations of this country, and he made valuable contributions to knowledge in his Survey memoirs on *The Vertebrata of the Forest Bed Series of Norfolk and Suffolk* (1882) and *The Vertebrata of the Pliocene Deposits of Britain* (1891), and in subsequent papers, communicated chiefly to the Geological Society, on vertebrate fossils from various caves, rock fissures, and river deposits. Among these papers may be specially mentioned one on a human skull and associated remains from a Pleistocene deposit at Galley Hill, Kent,

which was published by the Geological Society in 1895, and led to an interminable controversy.

Newton's most fundamental contributions to science, however, were made in three memoirs, published in the *Philosophical Transactions* of the Royal Society. In 1887 he gave the first satisfactory description of the brain of a pterodactyl, based on a specimen which he had obtained from the Upper Lias of Whitby. In 1893 and 1894 he described a series of reptiles from the Permo-Triassic sandstones of Elgin, Scotland, revealing for the first time in Europe genera related to the primitive reptiles already known in the Karroo formation of South Africa. By a most ingenious method of taking impressions from hollows left by the decay of the bones once buried in the sandstones, he reconstructed various parts of the skulls and skeletons, and added greatly to our knowledge of the groups they represented.

While engaged in his official duties and research, Newton found time to take an active part in the work of the London scientific societies, and he was a familiar figure at the meetings. At various times he was a member of Council of the Geological Society and Geologists' Association, and of the Publication and Finance Committees of the Zoological Society. He was elected a Fellow of the Royal Society in 1893, and received the Lyell Medal from the Geological Society in the same year. He was President of the Geologists' Association in 1896-8, and President of the Palaeontographical Society from 1921 to 1928. He ceased regular association with his scientific colleagues only when the feebleness of advancing years prevented his going far from home, and his absence left a regretted blank.

CORRESPONDENCE.

A QUESTION OF NOMENCLATURE.

SIR,—For facility of description and discussion, a name is needed for the ancient Volcanic Series of the country between the Menai Strait and Snowdonia, a region known for centuries as "Arvon" because it faces Anglesey (Von = Mon = Anglesey). The series comprises the well-known rhyolite of Llyn Padarn, the rhyolite between Bangor and Carnarvon, and the pyroclastic rocks of Bangor itself. Moreover, in the course of mapping, I have found that it is a good deal more extensive, various members occurring at places where they have not hitherto been recognized. The formation is of great importance in the early volcanic history of Britain.

But, as is well-known, its age has been a matter of serious controversy; Geikie, Blake, and others holding it to be Lower Cambrian; Hughes, Bonney, and others holding it to be Pre-Cambrian. My own duty in the matter is to reserve judgment until my mapping is completed, as several perplexities remain. Perhaps, however,