

Mr. B. G. Robbins brought up the question of improved windscreens wipers with blades travelling horizontally across the glass, and Mr. Bastow said that this is quite feasible though expensive. A wiper of this type was on the market some years ago but has been abandoned.

interests were petrographical. Later he made valuable contributions to our knowledge of the red rocks between the Coal Measures and the Trias in the Midlands; but it is particularly as a teacher, administrator and consultant that Boulton will long be remembered by colleagues and by a host of students now scattered all over the world.

L. J. WILLS

OBITUARIES

Prof. William S. Boulton

THE death on September 14 of Prof. William S. Boulton, emeritus professor of geology in the University of Birmingham, in his eighty-eighth year, has removed the last of the Victorian geologists. He was first an assistant of Lapworth's at Mason College, Birmingham, and later studied under Judd at the Royal College of Science, London, heading the examination list in geology. He stayed on for a fourth year as one of two assistants to Lockyer in his work on stellar photography, the other being Richard Gregory, later editor of *Nature*. The Victorians built on broad foundations! In 1890 Boulton returned to Mason College as demonstrator and assistant lecturer under Lapworth, and in 1897 went to University College, Cardiff, as lecturer in geology and geography, becoming professor there on the creation of the University of Wales in 1904.

Under Lapworth, engineering and mining students were taught the principles of geology, with some emphasis on their application to their particular professions, and with field-work as an essential part of the course—a novelty in those days. Boulton carried these ideas to South Wales and did a good deal of proselytizing through the medium of university extension lectures, to which he attracted large audiences, chiefly in the mining towns of the coal-field. He also was a contributor to and editor of a six-volume "Text-book of Practical Coal Mining".

At Cardiff he built up a reputation as a teacher of geology and geography, and as a consulting geologist in coal mining and water supply; and on Lapworth's retirement from Birmingham in 1913 he was appointed as his successor. The First World War interrupted all university work; but after it Boulton brought the whole of the Geology Department under one roof—it had previously been partly in the new buildings at Edgbaston and partly at Mason College—and under his guidance it expanded greatly while retaining the ideals of Lapworth with respect to pure research and the application of academic geology to engineering, mining and later to the oil industry. Boulton became acknowledged as one of the most outstanding authorities on the geological side of water supply, and he practised as a consultant for many years after his retirement from the University on reaching the age limit in 1932.

Boulton rendered public service on the Geological Survey Board, the Safety in Mines Research Board, the Government Inland Water Survey and the Council of the Geological Society; he was president of Section C (Geology) of the British Association in 1916, of the South Staffordshire and Warwickshire Institute of Mining Engineers (1922–23), vice-president of the Geological Society (1934–35) and dean of the Faculty of Science both at Cardiff and Birmingham.

Apart from his investigations in connexion with coal and ironstone mining and water supply, most of which naturally remains unpublished, Boulton's early

Prof. Antonio Minto

PROF. ANTONIO MINTO, whose death is reported at the age of seventy-four, was for long years one of the best known and most influential figures in Italian, especially Etruscan, archaeology. As professor in Florence, as 'soprintendente' for northern Etruria, and as president of the Istituto di Studi Etruschi, he came to occupy a commanding position in this field.

Born at Pieve di Sacco near Vicenza in 1880, the first part of his archaeological life was spent in Greece, where he worked with Halbherr and Pernier. Then came the First World War. Afterwards he worked in Campania (1922–24), until, in 1924, he was appointed 'soprintendente' in Florence. There he remained until the end of his working career (he retired in 1951), and it is with Florence and northern Etruria that his name will always be particularly associated.

Under his direction the reorganization of the Museo Archeologico in Florence, begun in the reign of Milani, was largely completed. The original home of the Museum, the Palazzo della Crocetta, was enlarged by the addition (1930–40) of the long series of galleries that now house the greater part of the Museo Topografico, and was itself largely rearranged so that a great quantity of material was made readily available to students. The vision that had been Milani's, of Florence as the centre for Etruscan, and indeed Italic, studies, was shared by Minto, although he could never realize it fully. He had to endure the existence of another 'soprintendenza' for southern Etruria and the sight of the rich results of the new excavations at Vulci and Cervetri going to the Villa Giulia in Rome. He was, however, able to bring to birth the Istituto di Studi Etruschi with its home in Florence, and its annual, *Studi Etruschi*, published there (1927 onwards). Moreover, the extraordinarily rich collections of the Florentine museum, logically arranged and fully exhibited, together with the attitude of its directorate that makes study in the museum easy, have enabled it to maintain its position as the best single place in which to study Etruscan civilization.

Minto was not a great original scholar, not an intellect with the imagination to open up vast new vistas: his great service was in making material available and encouraging study. His work in the Museum was one result of this guiding principle. His writings, which were numerous, were nearly all publications of material that came into his control. New finds in his province were usually made known comparatively quickly and comparatively fully. His only two major publications were, characteristically, excavation reports: one of the remarkable early necropolis at Marsiliana d'Albegna excavated by the Prince Don Tommaso Corsini (published in 1921); the other of his own most important excavations, at Populonia (published in 1943). Besides these excavations, he undertook many less exciting investigations, notably at Heba, Saturnia and Sestino, of which notices appeared in the *Notizie degli Scavi*.

W. L. BROWN