of the Bloemfontein Town Council, chairman of the Governing Council of the National Museum, chairman of the Senate of the Grey University College, of the Senate of the University College of the Orange Free State, and chairman of the Senate of the University of South Africa. His interests extended to locust control, and he was also asked by the Provincial Authorities of the State to direct the investigation of freshwater fisheries in this province.

As time goes on, the important contributions Prof. Dreyer has made to the archæological story of South Africa and to the study of prehistoric man in this region will be more clearly seen in their true perspective and recognized for their importance. His collections have been on too great a scale for his personal complete description and publication, and will still be an important source for future research. Without them no true picture of South African prehistory is possible.

We, who were privileged to be closely associated with Prof. Dreyer, know how severely he suffered during the past two years and daily were witness to mind triumphing over body. In spite of the physical drawback, his clear memory, fast-working brain and keen interest never flagged for a moment nor deserted him. He thoroughly deserved that much-desired end —to die in harness. A. J. D. METRING

THE passing of Prof. T. F. Dreyer has deprived the study of early man in South Africa of one of its acknowledged leaders, and his place will not be easily filled.

Outside South Africa, Prof. Dreyer will be most widely remembered as the discoverer of the Florisbad skull, the most remarkable human fossil to be found in Africa since the Broken Hill skull. This discovery was a well-deserved reward for his intuition in selecting for thorough investigation the Florisbad mineral spring deposits with their wealth of archæological and fossil mammalian remains. But his explorations in the Matjes River Cave and elsewhere also constitute notable contributions to our knowledge of man in South Africa from prehistoric to historic times.

With a characteristic scorn for the compartmenting of knowledge, Prof. Dreyer pursued his studies simultaneously in the field of physical anthropology, Quaternary mammalian palæontology, archæology and even Quaternary geology and climatology. Such a broad approach, allied to the natural vigour and freshness of his mind, gave birth to original and challenging interpretations of his discoveries. However these may fare in the light of future increases in our knowledge, there can be no doubt that to the present generation of investigators in South Africa they have been a most valuable stimulus.

Prof. Dreyer was not only distinguished in the field of research; he was also an inspiring teacher. Moreover, as a senior professor his wide-ranging and lively intelligence did valuable service both within his own University and over the whole field of university and professional education in South Africa.

The vigour with which Prof. Dreyer maintained his opinions might lead a casual reader of his writings to misconceive him as an acrimonious controversialist. To encounter him personally was to find him quite otherwise : courteous, kindly and charming. As human being as well as scholar, he will be remembered with honour and with affection.

L. H. WELLS

## Prof. H. G. A. Hickling, F.R.S.

HENRY GEORGE ALBERT HICKLING, emeritus professor of geology in King's College, Newcastle upon Tyne, died on July 26 in his seventy-second year. He was born on April 5, 1883, in Nottingham. His school education in that town was followed by three years private study in Scotland, where the rugged cliffs of Angus were to inspire him with the love of geology. He learned the fundamentals of this science from Prof. W. Boyd Dawkins in the University of Manchester. He graduated in 1905, and after two years further study and research he became in turn lecturer in palæontology and geology in 1907 and reader in geology in 1917 in Manchester. Owing to the absence in India of Prof. T. H. (later Sir Thomas) Holland during the First World War, Hickling was acting head of the Department. In 1920 he became professor of geology in Armstrong College (now King's College), University of Durham, Newcastle upon Tyne, a post which he held until his retirement in 1948.

In 1934 he received the Murchison Medal from the Geological Society of London and in 1936 he was elected a Fellow of the Royal Society. In 1935 he presided over Section C (Geology) of the British Association. He also served on the Council of the Geological Society, on the Geological Survey Board and on the Fuel Research Board.

His research was mainly in the fields of palæobotany, coal-measures tectonics and coal petrology. During his Manchester period he published papers on palæontology, and on the stratigraphy of the Old Red Sandstone of Angus, and a paper on the nature and origin of the Cornish china-clay, in which he advanced a new and original theory of its genesis. During the same period he made a detailed study of the tectonic structure of the Lancashire coalfield, a work published in 1924 as a coloured map of the underground contours of a single coal seam—the Trencherbone seam—supplemented in 1927 by a book, "Sections of Strata". At a later date he applied the same method of mapping to the coal seams of the Northumberland and Durham coalfield (1950).

Hickling's most striking contribution to science, and the work for which he was best known, was in the field of the study of coal. Following on the pioneering work in Great Britain of James Lomax on the micro-petrology of coal, Hickling's first paper on this subject (*Trans. Inst. Min. Eng.*, 1917), followed by a paper on the chemical relations of the principal varieties of coal (*ibid.*, 1927), opened up a series of publications by him and by his pupils on the microstructure and on the chemistry of coal—a new and very important contribution to coal science, and one which received world-wide recognition.

Hickling was very keen on local geology, and he was responsible for the preparation of accounts of the geology of Northumberland and Durham for the meeting of the Geologists' Association in 1931 and for the meeting of the British Association in 1949. His interest in geology as a subject of popular education was already shown in his younger days when he published his book "Geology : Chapters of Earth History", and right through his academic career he was very much appreciated as a popular lecturer. He was also interested in water supplies, a subject on which he was an acknowledged authority.

This stark enumeration of facts will not convey to the generations of students, who revered and loved him, the Prof. Hickling they knew in the lecture room, laboratory and field and whose home was