wrapped in duffle-coats and working cheerfully in icy cavernous gloom with giant fans, rows of burners on the floor, and arrays of electrical thermometers to record the three-dimensional temperature distribution. It was a task for which his earlier researches on the viscosity of air had prepared him very well.

After service as visitor and manager, he was appointed in 1945 honorary secretary of the Royal Institution, a post which was to involve him, a few years later, in acutely controversial personal issues. Few will be disposed to deny the courage and tenacity with which he successfully maintained his position and views in the face of increasing difficulties and deteriorating health. The key to his general position on social issues lay in his early upbringing, and an instinct to support humbler ones against power and privilege. He had, as he said, a natural sympathy with the rebel, though he took his place easily and naturally in any *milieu*. His rare gift of friendship will make his loss widely mourned.

He married, in 1907, Ruby Irene, daughter of the late Mr. Samuel Short, of Reading, and had two sons and two daughters. L. C. MARTIN

Dr. A. L. Hall, F.R.S.

ARTHUR LEWIS HALL, one of the foremost contributors to South African geology, died on August 13, 1955, at his home in Pretoria.

Hall was born on January 10, 1872, at Birmingham. A scholar of Gonville and Caius College and Harkness Scholar in geology at Cambridge, where later he also took his doctorate, he was appointed field geologist to the Geological Survey of the Transvaal in 1903. In 1915 he became assistant director of the Geological Survey of the Union of South Africa and in January 1932, on reaching the age limit, he retired from official duties after thirty years of devoted service to the State and to South African geology. He then busied himself as a consulting geologist, until his eyes began to trouble him and he was forced to withdraw from further active work in the profession in which he took such a lively interest and achieved so much.

Apart from general features, little was known of the geology of the Transvaal in 1903. Consequently, almost wherever his work led him, Hall found himself breaking fresh ground, and he can justly be counted among the able pioneers of South African geology. Most of his work was done in the eastern and north-eastern Transvaal in a much diversified country of rugged mountains and low-lying bush-veld. In the early days, field-work there was accompanied by many obstacles as well as a vast amount of fatiguing work that called for ingenuity, courage and the ability to overcome difficulties in order to achieve success. Hall, a great enthusiast and an energetic worker, possessed these qualities to a marked degree. His strong constitution and tenacity of purpose enabled him to produce the fine geological maps for which he is noted.

By his strenuous field-work, his detailed microscopical studies of large amounts of petrological material and other research work, Hall was able to make many important contributions to geology in the fields of pure as well as applied science, and thus exerted a lasting influence on geological development over a wide part of the Transvaal. He will be especially remembered for the leading part he played in the delineation of the Transvaal System and its relationships to other formations, his studies of the Archæan formations, his investigations of the country's mineral resources and, above all, his elucidation of that great igneous assemblage known as the Bushveld Igneous Complex, with its wide, contact metamorphic aureole. He conducted the Shaler Memorial Expedition and also the Bushveld excursion of the International Geological Congress through the northern and eastern parts of the Complex, when he was able to present "much important field-evidence to a phalanx of geologists that included the élite of international petrographical thought".

International geology was advanced by Hall's share in the deliberations during the sessions of the International Geological Congress held in Spain, the United States and Russia. The success of the Congress in South Africa in 1929, of which he was the secretary-general, was largely due to his organizing abilities.

The Geological Museum of the Geological Survey owes a very large part of its utility and attractiveness to his energy and care.

Hall was a past-president of the Geological Society of South Africa, a Fellow of the Royal Society of South Africa and of the Geological Society of London, a council member and president of the South African Geographical Society, a corresponding member of the Geological Society of America, and a regional vice-president of the Society of Economic Geologists, United States of America. His distinguished services to geology were recognized by his election as a Fellow of the Royal Society and as an honorary member of the Geological Society of South Africa, and in the award to him by the Geological Society of London of the Murchison Medal, and by the Geological Society of South Africa of the Draper Medal.

Socially, Hall was a man of distinct personality whose sterling worth and ability aroused the deepest respect and admiration among those who worked with him. He will be remembered as much for his intense humanity as for his geological prowess.

LOUIS T. NEL

Dr. E. C. S. Megaw, M.B.E.

BY the sudden death of Dr. E. C. S. Megaw on January 25 at the early age of forty-eight, the nation has lost one of its most prominent scientists in the field of applied radio-physics.

Eric Christopher Stanley Megaw, the eldest son of a Belfast solicitor, was educated at Campbell College and The Queen's University, Belfast; and, after obtaining his B.Sc. degree in electrical engineering, he was elected to a research fellowship at the Imperial College of Science and Technology, University of London. While still a schoolboy, he became prominent among radio amateurs, and was reputed to be the first amateur in Ireland to receive signals from New Zealand on his home-made apparatus.

It was at the Imperial College that his scientific interest in the generation and use of very short radio waves was aroused; and, under the direction of Prof. C. L. Fortescue, he studied electronic oscillations in valves. He joined the staff of the Research Laboratories of the General Electric Co., Ltd., in 1930, and rapidly acquired a reputation as a result of his research on the magnetron short-wave oscillator. A paper on this subject read before the Radio Section of the Institution of Electrical Engineers in 1933 was awarded the Duddell Premium of the Institution. He also received the diploma of the Imperial College and later the D.Sc. degree of Belfast.