

published in the *Proceedings of the Royal Society* papers on the analysis of materials by means of X-ray emission spectra.

In the 1930's and 1940's Eddy was a not infrequent contributor of articles to the *British Journal of Radiology*. From these can be deduced not only his native interest in the fundamentals but also his administrative acts in introducing methods of modern dosimetry into the Australian practice of radiology.

Indeed, as a scientific administrator, Eddy was outstanding. His battles to bring all that was best in the world to his own country will probably only be known and appreciated there. But in recent years he was to become more widely known in international scientific relations. With the introduction after the Second World War of radioactive isotopes, it fell to Eddy to negotiate abroad for materials and equip-

ment with which Australian physical, biological and medical research could keep in step with the most advanced countries of the world. In the field of personal and public protection against radiations and radioactivity he was an active participant in the deliberations of the International Commission on Radiological Protection, and lately he had represented his country on the committee of the United Nations Organization called on to evaluate the world problem of radioactivity. Of this notable body he was elected chairman; his loss at this stage, after such a successful start of this Committee's deliberations, will be deeply felt.

In addition to his membership of Australian scientific societies, Eddy was a Fellow both of the Physical Society and the Institute of Physics in Britain.

J. F. LOUTIT

NEWS and VIEWS

Geology in Edinburgh:

Prof. Arthur Holmes, F.R.S.

PROF. ARTHUR HOLMES, who shortly retires from the regius chair of geology in the University of Edinburgh, has been distinguished for his contributions in two main fields of his science. In his early days at the Imperial College of Science and Technology, London, his association with Lord Rayleigh led him to pioneer the investigation of the geological implications of radioactivity. Major contributions to the problem of the age of the Earth and to the assessment of the Earth's thermal history have come from his pen; for example, he first directed attention to the importance of potassium as an emitter of radiothermal energy. It is not too much to say that his work revolutionized previous conceptions of geological time and of the history of the Earth. At the same time, he continued the interest in igneous petrology first manifested in his account of his explorations in Mozambique with a series of outstanding studies which have included such diverse subjects as the alkaline igneous rocks of North-west Angola, the Arctic basalts, the Whin Sill and the North of England dykes, the petrography and chemistry of the potash-rich lavas of Uganda, and the origin of kimberlite. He has never been content with mere petrographical description; through all his work there has run the search for a fundamental mechanism capable of producing the diversity of rock types which the Earth's crust exhibits, leading him far in the direction of syntexis and metasomatism under the influence of emanations.

In 1924, Holmes went to Durham as first head of the newly founded Geology Department; there he remained until his translation to Edinburgh in 1943. His great gifts as a teacher and his lucid text-books on petrography and physical geology have made his influence on the science profound and lasting. His later years have been full of honours; he was elected to the Royal Society in 1942; a foreign member of the Royal Swedish Academy of Sciences and of the Royal Netherlands Academy of Science in 1947 and of the Paris Academy of Sciences in 1955. This year he received the Wollaston Medal, senior award of the Geological Society of London, and is to be the recipient of the Penrose Medal of the Geological Society of America.

Prof. F. H. Stewart

DR. F. H. STEWART, senior lecturer in geology in the Durham Colleges, is to succeed Prof. Holmes in Edinburgh. An Aberdonian, Dr. Stewart was educated at Fettes College, Edinburgh, and in the University of Aberdeen, where in 1937 he gained a first-class honours B.Sc. in geology. Having been awarded the Kilgour Research Studentship, he commenced investigations of igneous petrology under Prof. T. C. Phemister; these he continued at the Department of Mineralogy and Petrology at Cambridge under Prof. C. E. Tilley during 1939-41. He was then appointed to the physico-chemical research establishment of Imperial Chemical Industries at Billingham. Here he became interested in the potash-bearing salt deposits, and began his studies on the cores of Eskdale No. 2 borehole, the first boring to find potassium evaporites in Britain. In 1943 he was appointed lecturer in petrology in the University of Durham, and here the work begun in Scotland and at Billingham has been brought to fruition.

Dr. Stewart is chiefly known in the field of igneous petrology for his study of the layered basic complex of Belhelvie, probably the best example in Britain of a type which includes also the great Bushveld body in South Africa. After completing this work, he began a revision of part of the Tertiary volcano of Skye, which is still in progress. His contributions to the petrological study of the saline deposits have been many and varied, but they have served especially to reveal the numerous and complex mineral substitutions which have taken place in the evolution of potassium-rich zones. The publication of his work on the borings undertaken for Messrs. Fisons around Robin Hood's Bay, Yorkshire, is awaited with much interest. In the meantime, Dr. Stewart's petrological investigations have found recognition in the award of a moiety of the Lyell Fund, by the Geological Society of London in 1951, and of the Mineralogical Society of America Award for 1952. In following Arthur Holmes from Durham to the Edinburgh chair, Frederick Stewart takes with him a broadly-based reputation in mineralogy and petrology; but these subjects do not represent the sum of his interests. His enthusiasm for field geology in all its aspects, his skill as a collector of fossil fishes and his knowledge of ornithology reveal him as a naturalist in the best sense.