active part in the Geology Section at the British Association meetings of 1954 and 1955.

Among his activities after retiring from the public service, Edmunds continued to put his geological knowledge at the disposal of the community on questions of planning in the County of Surrey.

It is sad that the fatal recurrence of an illness he had suffered three years previously prevented Edmunds from enjoying longer a happy retirement in the beloved Mole valley where he had made his home since 1939. His wife and daughter will know that his memory will long be cherished in the Dorking and Mickleham district for his activities both as townsman and countryman, and the delight he took in music and musical affairs.

S. C. A. Holmes

NEWS and VIEWS

Earth Satellite 1960ε

The heaviest satellite yet to be placed in orbit about the Earth was launched from the U.S.S.R. at about 00 hr. U.T. on May 15. Its total weight, excluding the final stage of the rocket which took it into orbit, is 4,540 kgm. (10,010 lb.), more than three times as heavy as *Sputnik* 3, which was launched two years earlier. The satellite, which has been called *Korabl'-Sputnik* or space-ship satellite, consists of a pressurized cabin weighing about 2,500 kgm., which contains a dummy astronaut and all apparatus necessary to keep a man alive in space, together with extensive instrumentation, weighing about 1,500 kgm. The satellite carries various radio transmitters, with the main one operating on a frequency of 19·995 Mc./s. The chief purpose of the satellite is to test the design of the cabin, and the first measurements made by the instruments suggested that the environment in the cabin was suitable for human survival. It is stated that the cabin is to be detached from the remainder of the satellite ; it will then probably burn up in the atmosphere, since it is not designed to withstand re-entry.

The orbit of the satellite, like that of *Sputniks* 1, 2 and 3, is inclined to the equator at an angle near 65°. The initial period of revolution was 91·2 min., corresponding to a semi-major axis of 6,713 km., and the orbit was nearly circular, having an eccentricity of about 0·0048. The satellite was at perigee when going north at a latitude near 54° N., the perigee height being about 320 km. (200 miles) and the apogee height about 380 km. (235 miles). The lifetime of the satellite is uncertain, being dependent on conditions after the separation of the cabin, but does not seem likely to be more than a few months. At latitudes between 40° N. and 60° N. the satellite will be favourably placed for observation in the night sky during May and June. The final stage of the launching rocket separated from the satellite on entering orbit.

Cryptogamic Botany at Manchester : Prof. J. Colhoun

Dr. John Colhoun, reader in mycology and plant pathology in the Queen's University, Belfast, has been appointed to the chair of cryptogamic botany in succession to Prof. C. W. Wardlaw, who now occupies the George Harrison chair of botany in the University. Though his published work lies in the fields of mycology and plant pathology, of which he is a distinguished exponent, Dr. Colhoun is also a botanist of wide experience. He entered the Queen's University of Belfast in 1930, graduated in science in 1933 and in agriculture in the following year. The next four years were spent in research at the Department of Agricultural Botany in Belfast and at the Imperial College of Science and Technology, London. He returned to Belfast in 1938 to the Department of Plant Pathology and from 1940 up to the present has held posts in the Departments of Agricultural Botany and of Mycology and Plant Pathology. Since 1939, he has held, concurrently with his University appointments, corresponding posts in the Plant Pathology Division of the Ministry of Agriculture of Northern Ireland. During 1942–49, Dr. Colhoun was warden of the Queen's Elms hall of residence for men in Belfast and has also held other University posts. During the past twenty-five years Dr. Colhoun's researches have been directly related to fundamental problems in plant pathology, particularly in relation to plant environment, the control of the diseases of economic plants, and the investigation of the physiology of various fungi. He has also co-operated with geneticists in a programme of breeding disease-resistant plants. He is the joint author of a book on "The Diseases of the Flax Plant", the author of an important monograph on "Club Root Disease of Crucifers" and of many contributions to scientific journals.

Physiology at the London Hospital Medical College: Prof. K. W. Cross

Kenneth William Cross, who has been appointed to the chair of physiology in the London Hospital Medical College, in succession to Prof. J. L. D'Silva (see *Nature*, **184**, 405 ; 1959), entered St. Mary's Hospital as a Scholar soon after the outbreak of the Second World War. After qualifying, he held a research studentship in the Wright–Fleming Institute, and having obtained the M.R.C.P. spent the remainder of the War as casualty physician at St. Mary's and as resident physician to the E.M.S. Hospital at Amersham. After the War, he worked for a year with the Friends' Ambulance Unit in China and taught at Cheeloo University. On his return in 1947 he was appointed lecturer in physiology in St. Mary's Hospital Medical School and soon afterwards also clinical assistant on the Pædiatrics Unit of the Hospital. He then settled down to study respiration and metabolism in the new-born infant, and this has remained his principal interest. He devised an accurate method for determining the infant's respiratory movements and oxygen consumption, and made a special study of the effects of lack of oxygen. The value of his investigations was soon recognized by the Sir Halley Stewart Trust and by the Medical Research Council. In 1951 he became joint organizing secretary of the symposium on anoxia of the new-born infant, arranged in London under the auspices of the International Organization of Medical Sciences. He remained at St. Mary's, being appointed reader in human physiology in 1953 and reader in physiology in 1956, and obtaining the degrees of Ph.D. and D.Sc.