

Mr. Birrell Russell

ON March 4, after making an adjustment at the top of the apparatus on which he was working, Birrell Russell slipped in some unexplained way and fell 33 ft. to the ground. He received very severe head injuries and died without regaining consciousness in the early morning of March 8.

Russell was a senior member of the staff of the Atomic Energy Research Establishment, Harwell, having been promoted to principal scientific officer in 1947. He graduated at Glasgow in 1933, taking first-class honours in mathematics and natural philosophy (second place for the year). He then did two years research work, as Houldsworth Research Scholar, on the diffraction of proton beams. From there, he went to the National Physical Laboratory, taking up radio research, and was transferred in 1937 to the Royal Aircraft Establishment, where he worked under Dr. A. C. Bartlett on very high frequency radio for aircraft. In 1940, he was moved to the Telecommunications Research Establishment, then at Worth Matravers, and remained with that Establishment throughout the War.

Russell's work at the Telecommunications Research Establishment was mainly on aerials for aircraft radar. He worked first on aerials for the early version of A.I., the radar device used by fighters to track down enemy aircraft in the dark. Later, he devised direction-finder aerials to enable our long-range fighters to home on to enemy fighters fitted with A.I. Thus he was able to develop a device which enabled our fighters to single out and destroy enemy night-fighters. This was put into operational use with excellent results in the British large-scale bombing offensive. At the end of the War, Russell worked on centimetre-wave aerials and was the author (or part author) of two papers on this subject in the *Journal of the Institution of Electrical Engineers*.

In the summer of 1946, Russell transferred to Harwell, where he was one of the first residents on the site. He was set the problem of isotope separation by the method of gaseous thermal diffusion. As a result of his work, he was able to set up a plant for the production of oxygen-18, enriched from its normal concentration in atmospheric oxygen up to about 20 per cent. This plant had been erected and tested, and was due to start production on March 7. The product was to be sent to the Medical Research Council for use as a non-radioactive tracer in important medical and biological work. It was after making a final adjustment to a water relay in preparation for the production run that the accident occurred.

Russell had considerable experience in the supervision of the work of junior staff and was in charge of a group working on various problems connected with isotope separation in the gas phase. He was a very energetic and capable experimentalist who had his heart in his work, and Harwell and the world of science generally have suffered a severe loss in his premature death. He leaves a widow and two small children.

H. W. B. SKINNER

WE regret to announce the following deaths :

Sir Thomas Hill Easterfield, K.B.E., during 1899-1919 professor of chemistry in the Victoria University College, Wellington, New Zealand, and director during 1919-33 of the Cawthron Institute, on March 1, aged eighty-two.

Sir William Hale-White, K.B.E., of Guy's Hospital, London, president in 1922-23 of the Royal Society of Medicine, on February 26, aged ninety-one.

Mr. James Hornell, known for his studies of primitive boats, on February 24, aged eighty-three.

Sir Archibald Page, formerly chairman of the Central Electricity Board, and president in 1927-28, and honorary member, of the Institution of Electrical Engineers, on March 7, aged seventy-three.

NEWS and VIEWS

Agricultural Research Council : Dr. W. K. Slater

WITH the approval of the Lord President of the Council and after consultation with the president of the Royal Society, the Agricultural Research Council has appointed Dr. W. K. Slater to be its secretary, in succession to the late Sir John Fryer, as from May 1. The Minister of Agriculture and Fisheries has agreed at the request of the Agricultural Research Council to release Dr. Slater from his present duties as a senior education and advisory officer in the National Agricultural Advisory Service. Dr. Slater was educated at the Oldham Hulme Grammar School and at the University of Manchester, where he graduated in 1914. In 1922 he joined the team working under Prof. A. V. Hill in the Department of Physiology, Manchester, and later followed Prof. Hill to University College, London. During the next six years, Dr. Slater held Junior and Senior Beit Memorial Medical Research Fellowships, and carried out a series of investigations on the anaerobic phase in muscular contraction and on the general phenomenon of anaerobiosis in animals. In 1928 Dr. Slater joined the staff of the Dartington Hall Trustees to set up a research laboratory and supervise the scientific aspects of their wide-scale experiments in rural economy, and later he was placed in charge of the

administration of the agricultural departments of the Trust. Although personal research work was not possible, the laboratory at Dartington Hall under Dr. Slater's general supervision co-operated extensively with the research institutes on a wide range of problems, and did valuable work on the control of potato blight and on cobalt deficiency effects in sheep. In 1942 his services were loaned to the Ministry of Agriculture and Fisheries to assist the late Sir John Fryer in connexion with the Agricultural Improvement Council, and when Sir John became secretary of the Agricultural Research Council, Dr. Slater followed him as secretary of the Agricultural Improvement Council.

J. W. Dobereiner (1780-1849)

BORN at Hof in Bavaria, Johann Wolfgang Dobereiner began as a pharmacist's apprentice in 1794, and later practised pharmacy at Dillingburg, Karlsruhe and Strasbourg, where he set up as a manufacturer of chemicals. For a time he conducted an institute for teaching practical chemistry; then he joined a textile company and set about improving dyeing processes. The Napoleonic wars ruined him; but he was fortunate to come to the notice of Goethe, who obtained for him a professorship at Jena, where