

A few years ago Dr. Lafferty suffered a serious illness. Although afterwards he resumed duties, he never fully recovered his health. Then in 1953 he had a relapse, yet was again back at the Seed Testing Station in June 1954; but his return was of short duration as he soon suffered a further relapse, and he died on July 19. He was predeceased by his wife some years ago, and he is survived by two sons for whom the greatest sympathy is felt. R. McKAY

#### Dr. W. E. Foster

DR. W. E. FOSTER, who died on August 3 as a result of a motor-cycle accident, was lecturer in

botany in the Durham Colleges, University of Durham. Apart from the period 1945-49, when he was an I.C.I. Fellow, he had held this appointment since 1940, when he went to Durham from King's College, Newcastle upon Tyne. He had done much work on the physiology and biochemistry of respiration, including studies of carbon dioxide zymasis; recently he had been engaged in work on physiological ecology with special reference to the oxygen supply and respiration of marsh plants. He was a gifted lecturer and an inspiring teacher; and his untimely death at the age of forty-three is deeply regretted by his many pupils, as well as by his friends and colleagues.

## NEWS and VIEWS

### Chemistry at Dundee: Prof. A. D. Walsh

DR. A. D. WALSH, who is to succeed Prof. D. H. Everett (see *Nature* of March 20, 1954, p. 523) in the chair of chemistry at Queen's College, Dundee, is thirty-eight years of age and since 1949 has been successively lecturer and reader in physical chemistry in the University of Leeds. He received his undergraduate training in Cambridge, entering Corpus Christi College as an Open Scholar in 1935. His first research (with Dr. W. C. Price) was concerned with the measurement of the far ultra-violet absorption spectra of simple molecules, from which it is possible to compute their ionization potentials. More recently Dr. Walsh has greatly extended the range of his investigations in this field in a manner which has added very considerably to our knowledge of molecular structure. During the War his attention was directed to chemical processes occurring in internal combustion engines. From this work his interest naturally extended into the field of spontaneous combustion. Both in the fields of spectroscopy and of combustion Dr. Walsh has made distinctive and original contributions and, because of his capacity for lucid exposition, has been greatly in demand as a lecturer both in Britain and overseas. Although his departure is a serious loss for chemistry at Leeds, he will take with him to Dundee the good wishes of his colleagues and friends for success in his new post.

### J. L. Proust (1754-1826)

ONE of the architects of modern chemistry, Joseph Louis Proust, was born in Angers two hundred years ago, on September 26, 1754. He began his chemical studies in his father's apothecary's shop and later became chief pharmacist to the Salpêtrière in Paris. In 1784 he made one of the first man-carrying balloon ascents with J. F. Pilâtre de Rozier, in whose *musée* he gave lectures on chemistry. From Paris he went to Spain, teaching chemistry at the artillery school in Segovia, and later at Salamanca. He served as director of the royal laboratory in Madrid during 1789-1808, when the Peninsular War ruined his career and the invading French army destroyed his laboratory and collections. It was in Madrid that his greatest and most enduring work was done. The period 1799-1807 witnessed his prolonged and bitter controversy with Jean Claude Berthollet. With brilliant analytic skill and logical reasoning, Proust pointed out some of Berthollet's errors, showed that chemical combination occurs only in fixed proportions

by weight, and thereby established the law of definite chemical proportions. In 1805 he demonstrated the presence of dextrose in various natural products, and he discovered leucine in 1819. Receiving a pension from Louis XVIII, he retired to Craon in Mayenne, was elected to the Paris Academy of Sciences in 1816, and finally returned to the town of his birth, where he died on July 5, 1826, aged seventy-two.

### Fire and the Atom Bomb

FIRE RESEARCH BULLETIN No. 1, entitled "Fire and the Atomic Bomb", by D. I. Lawson (pp. 30. London: H.M.S.O., 1954; 2s. 6d. net), deals specifically with the starting of fires by an atomic explosion and is based on a series of lectures arranged by the Home Office in May 1952 for senior fire officers and senior members of civil defence organizations. The report is written in a semi-popular style, and detailed analyses are omitted with the expressed hope that the report will be technically within the reach of a wide circle of readers. Nevertheless, it is not for the layman, and furthermore, since it is based on the official information contained in "The Effect of Atomic Weapons" (U.S. Department of Defense and U.S. Atomic Energy Commission: McGraw-Hill Book Co., 1950) and thus only on the very earliest of atom bombs, it will lose much of its interest even for those qualified to understand its details. The governing principle, as expected, is not to try to prevent all fires as a result of an atomic explosion, but to aim at reducing the fire danger to a minimum. It is important, therefore, to realize that about one-third of the energy of the bomb is released as heat radiation and that the fire danger occurs in the second flash period lasting for about three seconds, during which the bomb gives off an amount of heat equivalent to approximately  $7 \times 10^{12}$  calories. Accordingly, the first half of the report discusses in some detail radiation as a mode of heat transfer, the ignition of materials by an atomic flash and the physiological effect of heat radiation. In the latter half, concerned with fire prevention, attention is directed to fires started by radiation coming through windows. First, inflammable materials inside a room must be kept outside the danger zone and, secondly, the heat radiation must be prevented as far as possible from entering the room by, for example, fixing some incombustible board across the window space. Any board opaque to light radiation will also form a barrier to the heat, and various means of cutting off the radiation without obscuring the daylight are mentioned.