

NEWS and VIEWS

Prof. W. T. Astbury, F.R.S.

IN 1928 the Worshipful Company of Clothworkers of the City of London made a grant of £3,000 a year to the University of Leeds for research purposes. Never has a grant been more fully justified, for it resulted in the appointment of Dr. W. T. Astbury as lecturer in textile physics and induced him to take up the study of proteins. A scholar of Jesus College, Cambridge, Astbury had acted as assistant to Sir William Bragg, first at University College, London, during 1921-23, and then at the Davy Faraday Laboratory of the Royal Institution during 1923-28. At Leeds, therefore, X-ray studies of hair, wool and related fibres claimed his immediate attention, and the main features of the molecular structure of the keratins were defined in two papers published in the *Philosophical Transactions of the Royal Society* in 1931 and 1933. The industrial importance of this and other work was recognized by the award of the Gold Medal of the Worshipful Company of Dyers in 1934, and the Warner Memorial Medal of the Textile Institute in 1935. Its implications in the biological field were even more profound: assisted by generous grants from the Rockefeller Foundation since 1933, he utilized his concept of folded and extended polypeptide chains, derived from the examination of unstretched and stretched wool fibres, to obtain a structural interpretation of the denaturation phenomenon, and, later, to identify the keratins, myosin, fibrinogen and fibrin as belonging to the same group of proteins.

The extent and importance of Astbury's work on the structure and stoichiometry of the proteins have been recognized by the award of the Actonian Prize of the Royal Institution in 1935 and the Sc.D. of the University of Cambridge in 1937; by his promotion to reader in textile physics at the University of Leeds in 1937; and by his election to the fellowship of the Royal Society in 1940. This year he has had the distinction of being the Croonian Lecturer of the Royal Society, and the many admirers of his work will now rejoice to know that the University of Leeds has elected him to the chair of biomolecular structure, which was instituted in his honour.

Royal College of Physicians: Medal Awards

THE following awards have recently been made by the Royal College of Physicians:

Moxon Medal to Sir Alexander Fleming, for his work on penicillin, as an outstanding contribution to therapeutics and clinical medicine. This award, which is not restricted to British subjects, is made to the person who is deemed to have most distinguished himself by observation and research in clinical medicine.

Weber-Parkes Prize and Medal to Prof. Eugene L. Opie, professor of pathology, Cornell University, New York, for his work on the pathogenesis of pulmonary tuberculosis. This medal is awarded every third year for the best work done whether in Great Britain or abroad upon some subject connected with the etiology, prevention or treatment of tuberculosis.

Baly Medal to Prof. S. A. S. Krogh, of the Zoophysiological Laboratory, Copenhagen, who has made outstanding contributions to our knowledge of the capillaries and of related physiological problems in cellular nutrition and respiration. This award is made every alternate year to the person who shall be

deemed to have most distinguished himself in the science of physiology, especially during the two years immediately preceding the award, and is not restricted to British subjects.

Fifty Years of X-Rays

IN the history of science there have been few more unexpected and few more fruitful discoveries than that made by Wilhelm Konrad Röntgen on November 8, 1895, and described not many days after in his paper "Über eine neue Art von Strahlen" read to the Physico-Medical Society of Würzburg. Copies of the paper reached England early in 1896, and *Nature* of January 23, 1896, contained a translation of it. By those fortunately in possession of the necessary apparatus, Röntgen's experiments were repeated with delight and wonder, and not only that, they were put to very good purpose. In Berlin, on January 20, 1896, a medical man had with the new methods detected a glass-splinter in a finger, and at Liverpool on February 7, Dr. C. T. Holland found by X-rays a bullet in a boy's hand. None had received news of the discovery with greater interest than Sir Arthur Schuster, who in his book "The Progress of Physics during Thirty-three Years", published in 1911, tells how his laboratory was inundated by medical men with their patients, among whom was a ballet dancer whose trouble had been diagnosed as bone disease but who all the time had a needle in her foot. In April he and his assistants were called to Nelson, Lancashire, to a woman who had been shot by her husband and whose head Schuster explored with the new rays. There was no opposition to the application of Röntgen's discovery, as there had been to those of Lister and Pasteur, and medical science and surgery have benefited universally from it. Even after two world wars, it may be that X-rays have saved more lives than bullets have destroyed.

Medical aspects, however, are a small part of the story, for Röntgen's work influenced all physical studies. In the jubilee number of *Nature*, November 6, 1919, Sir Ernest Rutherford, as he then was, wrote that the discovery "marks the beginning of a new and fruitful epoch in physical science in which discoveries of fundamental importance have followed one another in almost unbroken sequence". Sir William Bragg said much the same thing, and none did more than these two distinguished men to further the use of X-rays for unfolding the secrets of Nature. Röntgen was born at Lennep, in the Ruhr, on March 27, 1845 (see *Nature*, March 24, 1945, p. 351), and was thus in his fifty-first year when he achieved fame. In 1894 *Nature* had referred to his collaboration with August Kundt, but he was then little known. His single observation, however, wrote his name indelibly in science, and among his rewards was the Nobel Prize of 1901. Before 1895 he had worked at Würzburg, Strassburg and Giessen and had returned to the first in 1885. His latter years were spent at Munich, first as director of the Physical Institute and from 1919 in retirement. He died there on February 10, 1923, having seen others reap a rich harvest from the seed he had sown.

Research in Britain on Atomic Energy

IT was announced by the Prime Minister on October 29 that the Government, acting in accordance with a recommendation from the Advisory Committee on Atomic Energy, has decided to set up a research and experimental establishment covering all