

Davies's official work was thus primarily concerned with agricultural entomology, for which he had a special flair, but his interests nevertheless were not confined to this aspect of his subject. His earliest publications dealt with certain species of *Collembola* as pests of agricultural crops, and he was so attracted by these insects that he also found time to establish for himself a wide reputation as an authority upon them; many of the collections made by recent expeditions overseas passed through his hands for identification. He had in course of preparation a systematic key to the identification of the British species, which it is hoped is sufficiently advanced to render publication possible.

As a man, Davies was beloved by all who knew him, and he will be greatly missed by entomologists everywhere, and notably by his colleagues and friends in the agricultural services.

J. C. F. F.

WE regret to announce the following deaths:

Joseph Auclair, *correspondant* of the Section of Mechanics of the Paris Academy of Sciences.

Prof. Cyrus R. Crosby, professor of entomology in Cornell University, on January 11, aged fifty-eight years.

Prof. J. H. F. Douvillé, formerly professor of palaeontology in the National School of Mines, Paris.

Sir Albert Kitson, C.M.G., C.B.E., director of the Geological Survey of the Gold Coast in 1913-30, on March 8, aged sixty-nine years.

Prof. C. J. Lewis, emeritus professor of public health in the University of Birmingham, on February 6.

Prof. F. P. F. Ransom, formerly professor of pharmacology in the University of London, on February 22, aged eighty-seven years.

News and Views

Sir Joseph Barcroft, C.B.E., F.R.S.

SIR JOSEPH BARCROFT retires this year from the chair of physiology in Cambridge to which he succeeded on the death of Langley in 1925. Throughout an active life, Sir Joseph has played a prominent part in maintaining the high tradition of the Cambridge school of physiology. He has made many important contributions to knowledge, and has taught others to do the same, but his greatest contribution to physiology has been through his indirect influence on younger men. His enthusiasm, his good humour, his attractive style of writing and speaking, and his unusual gift for putting the results of profound thought into simple language, have inspired many with a love of physiology which has influenced them throughout their lives. As head of a large laboratory, he has found time to take a friendly interest in many different investigations without actively interfering with the natural development of the ideas of his colleagues.

THOUGH he is not a medical man, much of Sir Joseph's work has been with human subjects, and much of it has had a dramatic quality that has made him widely famous. His early investigations were concerned mainly with the carriage of oxygen by blood, and with the chemical changes in organs such as the salivary glands and the kidneys which were found to use more oxygen during activity than during rest, and to liberate metabolites which controlled their blood supply. In order to study the gases in small samples of blood, or other tissues, he invented a differential manometer which is widely known as the Barcroft apparatus. For many years, he represented Cambridge against Oxford in favour of the view that the passage of gases through the epithelium of the alveoli of the lungs was a simple physical process and that, even under adverse conditions, the lungs could not take

up oxygen unless the oxygen pressure in the air was greater than that in the blood. In support of this conclusion he led expeditions up high mountains, and exposed himself to low oxygen pressures for many days in a glass box in Cambridge. In more recent years he has shown, by striking experiments, that the spleen plays an important part in the circulation as a reservoir of blood, which is released in emergencies, and he has added much to our knowledge of the oxygen supply to the foetus *in utero*, and other allied subjects.

Prof. E. D. Adrian, F.R.S.

PROF. E. D. ADRIAN, who succeeds Sir Joseph Barcroft to the Cambridge chair, has also spent all his scientific life in Cambridge, where he is now a Foulerton research professor of the Royal Society. Before the Great War he worked with Keith Lucas on the problems presented by the impulses in motor nerves. He then left Cambridge, obtained a medical qualification, and quickly showed that he could have been a very successful clinician. He was R.M.O. at the National Hospital, Queen Square, and during the War he had experience of the treatment of shell-shock. In 1919, he returned to Cambridge and started his well-known work on the physical basis of sensation. All knowledge depends on the brain's analysis of impulses arriving in sensory nerves. Adrian took advantage of the new methods for amplifying small electric currents and tapped the messages in the nerves. He has thus analysed the activity of sense organs in a way that was not previously possible. In recognition of this work he received, with Sir Charles Sherrington, a share of the Nobel prize for medicine in 1932. He is now called upon to spread his interests more widely than in the past, and to devote his clear brain and ready understanding to helping investigations in many branches of physiology.