chairman of the Central Advisory Council for Education (England), the report of which on "School and Life" bears many marks of his philosophy of education.

In the course of his last public speech he said that he had lived to see most of his hopes realized. Certainly the results of his constructive thinking were many and widespread.

Sir Fred Clarke's educational philosophy was based on a deep faith in the English tradition. His special gift was that he was able to interpret that tradition with pride and with humility. He saw in it the real ties which could bind the Commonwealth together. He believed that education was an instrument for its sustaining and development. He held that it was the character of a people which determined its destiny, and that the material and economic circumstances of a nation were but symptoms of things lying deeper within its life. As education was in his view primarily concerned with laying the foundations of character, it was to him all-important.

He was beloved by all who worked with him or came within the reach of his inspiration. Wherever he went he had a word of encouragement and a touch of good humour. He was a merry man, and his twinkling eye and his pipe which never could contain its contents will be held in affectionate remembrance.

G. B. Jeffery

## NEWS and VIEWS

Zoology in the University of Lucknow: Prof. K. N. Bahl

PROF. K. N. BAHL retired from the chair of zoology in the University of Lucknow in September last, and was reappointed as a research professor; he has now been appointed vice-chancellor of Patna University. Prof. Bahl's retirement from active zoological research and teaching in the University of Lucknow, which he has served for thirty years with great distinction, is an event of special importance to Indian zoology. Prof. Bahl was educated at the Government College, Lahore, and the University of the Punjab, from which he received the degree of D.Sc. for his discovery of a new type of nephridian system, which he termed the 'enteronephric', in the common Indian earthworm. After a period at Oxford he returned to India and was appointed reader and head of the Zoology Department at the University of Lucknow in 1921, becoming professor in 1923. In 1938 he was awarded the D.Sc. by the University of Oxford. At Lucknow Prof. Bahl quickly earned a reputation by his inspiring teaching and his brilliant investigations. His zoological contributions fall into two categories. First may be mentioned his personal researches, especially on the morphology and physiology of the earthworms and other invertebrates. The elucidation of the structure, development and physiological function of the excretory system of earthworms may be regarded as his most important contribution. His tastes are, however, catholic, and he has worked with great skill on the details of pairing and egg-laying in the snail Pila and on the structure of the skull of the reptile Varanus. The second part of his contribution lies in his being the founder and editor of the now famous series, "Indian Zoological Memoirs", on Indian animal types, in which eight volumes, some of them running into four editions, have so far been published. The memoirs constitute landmarks in the history of Indian zoology, as they provide the basis of graduate and postgraduate teaching of morphological zoology in India in so far as the invertebrates are concerned. Many honours have come to Prof. Bahl. He was president in 1950 of the Zoological Society of India, of which he is a foundation fellow and honorary fellow. He is also a foundation fellow of the National Institute of Sciences of India. In recent years he has played an increasingly prominent part in the educational field, and during 1948-49 he served as a member of the University Commission of the Government of India.

American Association: Twenty-fourth Newcomb Cleveland Prize

THE twenty-fourth award by the American Association for the Advancement of Science of the Thousand Dollar Prize, now to be known as the Newcomb Cleveland Prize, was made at the Philadelphia meeting to Dr. J. Laurence Kulp, assistant professor of geochemistry in Columbia University, New York, for his paper entitled "Natural Radiocarbon Measurements". The award is made annually for a noteworthy paper presented as part of a regular programme of the annual meeting of the Association and representing an outstanding contribution to science. The generous, and previously anonymous, donor of this award, administered by the Association, was the late Newcomb Cleveland, of New York. He became a life member of the Association in 1923 and was the donor of this award beginning that year. With a fund of 25,000 dollars left as his bequest, the Association is to continue to make this award, but it will now be known as the Newcomb Cleveland Prize. It was always the wish of Mr. Cleveland that this prize should be awarded each year to one of the younger scientific workers and that it should not be divided among two or more, whether working inde-pendently or in collaboration. The prize is awarded upon the recommendation of a special prize com-

## East Malling Research Station: Mr. C. T. Royle

Mr. C. T. Royle, secretary of the East Malling Research Station, retired on December 31, after eighteen years service. He took up his post in October 1933; since then the experimental farm has doubled in size and the research staff quadrupled. In this connexion one of his most important tasks was the purchase of the Bradbourne Estate and its conversion to form the administrative headquarters of the Station. The efficient running of this large, complex Station and the cordial relations that exist between fruit-growers and the staff at East Malling, exemplified by the flourishing East Malling Research Station Association, owe much to Mr. Royle. He is succeeded by Mr. T. R. Littlehales, who has been working with him as his assistant since January 1950.

## National Institute of Sciences of India

In his presidential address at the annual general meeting of the National Institute of Sciences of India on October 5, Dr. S. L. Hora referred to the