

chemistry. A very important problem is the writing and publishing of new text-books on organic chemistry that correctly portray the present state of chemical science. It is essential to speed up the issue of the works of our classical chemists and, particularly, of the complete works of A. M. Butlerov and of V. V. Markovnikov.

The Conference notes that the Chemical Science Section of the Academy of Sciences of the U.S.S.R., and also scientific institutes and institutes of higher education, must pay more attention to theoretical chemistry and to questions concerning the ideological basis of chemical theories and must intensify their struggle against the infiltration of idealistic 'theories' that are foreign to Soviet science.

The Conference recommends:

(1) The prompt publishing (not later than the end of 1951) of the shorthand report of the Conference.

(2) Wide publicizing of the results of the Conference in scientific journals.

(3) That arrangements should be made to publish discussions on the development of the theory of chemical structure in organic chemistry in the scientific journals—in particular, in the *Journal of General Chemistry*, the size of the journal being increased for this purpose.

(4) The speeding up of the publishing of new text-books on organic chemistry that correctly portray the present state of chemical science, also of Soviet monographs on questions of theoretical chemistry.

(5) That the Chemical Science Section of the Academy of Sciences of the U.S.S.R. should periodically call conferences on the most important questions of organic chemistry and should invite specialists from allied sciences (physicists, philosophers, biologists, etc.) to attend.

The Conference calls on chemists, and also on scientists working in allied fields of physics, to take up the further creative development of A. M. Butlerov's theory of chemical structure on the basis of dialectical materialism, guided by the great works of I. V. Stalin and by his directions concerning the role and significance of progressive science in the evolution of society and of the role and significance of criticism in the evolution of science. The Conference calls on Soviet chemists to take all possible steps for the further advancement of theoretical chemistry and for the wide utilization of the results of scientific work for the national economy.

Under the guidance of the party of Lenin and Stalin, Soviet chemists will honourably carry out the directions of the great leader of the workers, the scientific genius, Iosif Vissarionovich Stalin.

OBITUARIES

Mr. J. McC. Black

It is with regret that we learn of the death in Adelaide on December 3 of John McConnell Black, the doyen of Australian botany, in his ninety-sixth year. Born in Scotland on April 28, 1855, at Wigton, Black was educated at Wigton Grammar School, the Edinburgh Academy, Taunton College School, where other devotees of natural science have been trained, and afterwards at Dresden. At the outset of his career he joined the staff of the British Linen Company's Bank; but at the age of twenty-two he migrated to South Australia, where, in the Baroota district, he spent five years farming. For the next

twenty years he served as a reporter on the staff of the *Register and Advertiser* of Adelaide. When, in 1902, he retired from Press work, he devoted himself to the study of the local flora, a subject which he made peculiarly his own. In 1909 there appeared his "Naturalised Flora of South Australia", which included descriptions of 368 species. Thirteen years later, when Black had already attained the age at which most men are thinking of retirement, there appeared the first part of what has become the standard flora of South Australia. This contained generic and specific descriptions of all the then known indigenous species and established aliens among the vascular plants. Two years later, namely, in 1924, the second part was published, the third appeared in 1926 and the entire work of seven hundred pages was completed in 1929, embodying clear and adequate descriptions of nearly 2,500 species. In appreciation of this outstanding achievement, largely based on his own original work, Black received a number of recognitions. He was awarded the Verco Medal of the Royal Society of South Australia and became president of that body in 1933. In the same year Black was elected an associate of the Linnean Society of London, and the Australian and New Zealand Association for the Advancement of Science awarded him the Mueller Memorial Medal. He thus joined the eminent company of Douglas Mawson, Leonard Cockayne and Wood Jones, all fellows of the Royal Society of London who were his immediate predecessors as recipients of the Medal.

When I visited Mr. Black in Adelaide he was, at the age of ninety-four, remarkably active both in mind and body and might easily have passed for a contemporary of a man twenty-five years his junior. Then, and almost to the time of his death, Black was working on the second edition of his flora. Parts 1 and 2 have already appeared, and on the very day before Black died he had completed the revision of the manuscript for Part 3 up to the Plumbaginaceæ.

Thus botanical science loses one more of those gifted and distinguished amateurs who have often done so much to enlarge our knowledge of the floras and faunas of the world's surface.

E. J. SALISBURY

Sir Fred Clarke

SIR FRED CLARKE, who died suddenly at his home in London on January 6, played a notable part in the promotion of higher studies in education in Great Britain. Born and bred in Oxfordshire, he was professor of education for five years in Southampton, eighteen years in Cape Town, and five years in McGill, before he became, in 1936, professor and director of the Institute of Education in London. It is not surprising that an outstanding feature of his tenure of that office was the development of strong ties between educationists in the older Dominions and the Institute. Under his leadership the Institute became a centre for the exchange of educational ideas and experience for the whole Commonwealth.

He took an active part in many important educational movements during the war period. He was an active member of the National Union of Teachers. As a member of the McNair Committee he was a strong advocate of the participation of the universities in teacher training. It was largely as the result of his inspiration that the National Foundation for Educational Research came into being. He was the first

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 Radio-carbon 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 independently or in collaboration. The prize is awarded upon the recommendation of a special prize committee.

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