

lowed up with great vigour and enthusiasm the advantage this clearer understanding of the problem gave them, and progress flowed from it rapidly.

Among his many outstanding contributions, Clunies-Ross was the first to record the effect of copper sulphate on closure of the oesophageal groove in sheep. This opened up a new approach to anthelmintic treatment. It was he who, by well-planned field trials, removed the fears of graziers that more intensive stocking of sheep on improved pastures would result in heavy losses from parasitism. This led him to investigate the effects of improved pastures on the quantity and quality of wool production. It was widely held that the well-being of the Merino and the quality of its wool depended on extensive, highly selective grazing, and that intensive grazing on the narrow range of species in sown pastures would result in coarse and inferior fleeces. Clunies-Ross clearly demonstrated that not only can Merino sheep tolerate intensive grazing but also that they respond to the higher nutritional levels of sown pastures by producing much heavier fleeces with little change in fibre diameter.

Clunies-Ross was an inspiring research leader. He had the capacity to see problems clearly, to ask the crucial questions and to find ways of answering them effectively by laboratory or field experimentation. His interest in veterinary research, however, and his choice of problems was always greatly influenced by his genuine love of animals. This is well exemplified by the work in tick-paralysis of dogs, which was one of his most original and successful investigations. He was then living in a part of Sydney where many hundreds of pet dogs died annually from the disease. He was so moved by their suffering and by the distress of their owners that, in addition to all his other work, he took it upon himself to study this problem also. Within three years he elucidated the epidemiology of the disease, traced its cause to a toxic factor in the salivary gland of the engorging female tick (*Ixodes holocyclus*), and prepared an antitoxic serum of high curative value. This was typical of him; his interest was not in gaining new knowledge for its own sake but for the use which could be made of it. Having once gained it, he used to the full his great gifts as a writer and public speaker to explain its significance to all who could apply it with advantage.

Clunies-Ross's active personal research had to be laid aside when he joined the International Wool Secretariat. Although he was appointed professor of veterinary science in the University of Sydney in 1940, he had little opportunity for scientific work, as he was called upon to serve during the war years as director of scientific personnel in the Commonwealth Directorate of Manpower and with the Department of War Organization of Industry as an adviser on the pastoral industry. The War interrupted his scientific career, but it gave him opportunities to use his unique knowledge of Australian agriculture and his outstanding powers as a speaker and publicist to encourage and assist the remarkable growth of science and education in Australia during the years which followed. In 1946 he joined the Executive Committee of the Council for Scientific and Industrial Research, and in 1949, when the Council was reorganized as the Commonwealth Scientific and Industrial Research Organization, Clunies-Ross became its first chairman. He continued to maintain his close interest in the wool industry and played a large part in procuring the funds which enabled C.S.I.R.O. to build up a major effort in sheep and

wool research and wool textile research. Throughout the pastoral industries his many friends had confidence in his judgment, and with their help and with the backing of the Government he had the satisfaction of seeing, towards the end of his life, a large body of scientists working enthusiastically on many problems of great national importance. The major contributions which C.S.I.R.O. has made to the agricultural development of Australia have been largely due to his outstanding and inspiring leadership.

Clunies-Ross had many interests outside his scientific work. The field of education was one in which he played a big part, and he was outspoken on the need for retaining breadth and liberalism in education. He stressed repeatedly the dangers inherent in the increasing specialization of modern scientific and technological careers. He played a large part in persuading the Government to set up the Murray Committee on Australian universities and made a major contribution to its outstanding report. He was deputy chancellor of the University of Melbourne and a member of the Council of the Australian National University. For many years he was active in the work of the Australian Institute of International Affairs and was well known as a public speaker on foreign affairs. He was particularly interested in the relations between Australia and its northern neighbours. As chairman of the International House of the University of Melbourne, a hall of residence in which Australian and overseas students live together, he was instrumental in making the idea a reality.

Clunies-Ross was made C.M.G. in 1954, and in the same year he was created a knight bachelor. He was a foundation Fellow of the Australian Academy of Science. He was awarded the honorary degrees of doctor of laws by the University of Melbourne, and doctor of science by the Universities of New England and Adelaide. He is survived by Lady Clunies-Ross, three sons and one daughter.

At the memorial service held in Scots Church, Melbourne, shortly after his death, Prof. J. D. McCaughey, Master of Ormond College, University of Melbourne, made a fitting tribute to his memory. He expressed in these simple terms the feelings of his many friends and colleagues throughout Australia and overseas: "But in and through these achievements, it is Ian Clunies-Ross the man whom we remember with admiration, with respect and with affection to-day. His capacity for work must have been enormous: to die at sixty is young, yet into those years was packed an astonishing variety and depth of interests. He lived a heavily committed life; yet, I suppose, that many of us in this Church think of him, with gratitude, as one who had time for friendship. He accepted us with a smile. It must have been given to few who have lived so fully, yet to be loved by so many".

F. W. G. WHITE
D. A. GILL

Dr. V. Korenchevsky

DR. V. KORENCHEVSKY, who died suddenly on July 9, was born in 1880 in Russia and graduated from the Imperial Military Medical Academy in St. Petersburg in 1903. After military service in Manchuria during the Russo-Japanese War, he worked in Metchnikoff's department at the Pasteur Institute in Paris and in Pavlov's laboratory in St. Petersburg.

In 1911 he was appointed professor of experimental pathology in the Imperial Military Medical Academy and remained there until the Revolution. His disagreement with the policy of the newly formed Soviet Government made it necessary for him to leave St. Petersburg and he escaped to south Russia, where he served as a doctor with the White Army for about a year. After the defeat of the White Army he made his way to England and in due course became naturalized.

During 1929-45 he was a member of the staff of the Lister Institute. Afterwards he established the Oxford Gerontological Research Unit, with the support of funds provided by Lord Nuffield, and remained there until his retirement in 1952.

The bulk of Korenchevsky's work between the Wars was primarily endocrinological and was concerned with studies of the effect of sex and thyroid hormones, separately and in combination, not only on the reproductive organs but also on the other organ systems of animals of different ages. His work was characterized by a very close attention to detail, the use of first-class histological techniques and insistence on the need for healthy experimental material. Korenchevsky regarded this work as a necessary preliminary to provide a rational basis for use of hormones in mitigating some of the degenerations which occur with ageing.

Dr. Korenchevsky will be especially remembered, however, for his pioneer achievements in stimulating interest in the field of gerontological studies. His own concern with the problems of ageing went back to the early years of the century when he visited Russian infirmaries for old people, and during his stay with Metchnikoff in Paris he worked on the

effects of gastro-intestinal auto-intoxication. He always remained convinced of the value of Metchnikoff's theory, and he reaffirmed his belief in the importance of auto-intoxication as an ageing factor in several recent publications.

By the late 1930's he felt that the change in the climate of opinion, for which he had been waiting, had come and that vigorous efforts to emphasize the need for gerontological research might at last be effective. He therefore set out with the intention of developing an International Association of Gerontologists which would be responsible for investigations in all branches of the subject. His efforts were just beginning to bear fruit when the outbreak of the War in 1939 brought them to an end for the time being.

After the War, his retirement from full-time active laboratory work allowed him to extend his campaigning even more vigorously. He was an outspoken advocate of the importance of gerontology, and in his missionary ardour he sometimes appeared intolerant of the ideas of others. But any irritation engendered by his interventions were always more than outweighed by their stimulant effect, and it was clear to everyone that he was never seeking any personal advancement but only the benefit to his chosen subject which recognition might bring. The results of his lifetime of strenuous effort will be found not so much in his large series of careful scientific publications as in the numerous national societies for the study of problems of ageing throughout Europe and the Americas, in the International Association of Gerontology and in the enhanced status which the subject has now acquired.

P. L. KROHN

NEWS and VIEWS

Chief Scientist to the Ministry of Power :

Dr. C. M. Cawley, C.B.E.

DR. C. M. CAWLEY, C.B.E., has been appointed chief scientist to the Ministry of Power in succession to Sir Kelvin Spencer, who has retired from the public service. Dr. Cawley, who is fifty-two, has been at the headquarters of the Department of Scientific and Industrial Research for the past six years, where he has been responsible for administering general policy in relation to the work of the Department's research stations, and to grants made by the Department to the universities and other bodies, for the promotion of research and the training of research workers. He is a University of London graduate with first-class honours in chemistry and joined the Scientific Civil Service in 1929, serving on the staff of the Fuel Research Station until 1953. He will take up his new appointment at the Ministry of Power in the early autumn.

Ministry of Supply Appointments :

Dr. N. J. L. Megson

DR. N. J. L. MEGSON has been promoted to be deputy chief scientific officer and appointed director of materials, research and development (air) at the Ministry of Supply Headquarters. Dr. Megson studied chemistry at the University of Birmingham under Prof. G. T. Morgan. He obtained his B.Sc. in 1923 and his M.Sc. in 1925. He joined the Chemical Research Laboratory, Department of Scientific and

Industrial Research, in 1927, as head of the Synthetic Resin Section and carried out fundamental and applied work on various aspects of polymers, particularly in the phenolic resin field.

On the outbreak of war he was appointed to the Ministry of Supply as advisor on plastics and later became assistant director in charge of the Advisory Service on Plastics, Rubber and Paints, concerned with development and application of new and special materials for a variety of Service equipment. In 1949 he was awarded the degree of D.Sc. by the University of Birmingham for a thesis entitled "Polymer Investigations". He became head of the Chemistry Department, Royal Aircraft Establishment, in 1951, responsible for research and development of non-metallic materials associated with aircraft and airborne equipment. Dr. Megson is the author of fifty or sixty publications, including a book, "Phenolic Resin Chemistry", and he has recently been awarded the Gold Medal of the Plastics Institute. He succeeds Dr. H. Sutton, whose direct contribution to and sponsorship of work on light metals for aircraft construction has brought him deservedly wide appreciation.

Dr. B. G. Dickins, C.B.E.

DR. B. G. DICKINS, who has been promoted to be chief scientific officer and appointed as director general of atomic weapons in the Ministry of Supply, brings to that post wide knowledge of