

2, 1966. It would be highly desirable if Great Britain could form a nucleus of a National Gerontological Society with this missing third section for a sociological, psychological and industrial gerontology. Great Britain seems to be one of the few modern States which has not brought about this organizational development. I should like to contact all those interested in the proposals. Research is important, applied research is even more important; but for us now yet more important is an appropriate national organization. My address is: 26 Dransfield Road, Sheffield 10.

It is hoped to convene a meeting shortly in Birmingham, as a central city, to discuss this more thoroughly and to bring such an organization into being. I should appreciate comments on this article, offers of support and, indeed, offers of funds; a start could be made with a few thousand pounds, and this should yield a considerable return to the nation. This has been a very brief sketch of the situation, but I appreciate that the whole matter must be discussed by people from different university disci-

plines, from industry and the Trade Unions, and from Government departments, etc.

¹ *Report of the Royal Commission on Population* (Cmd. 7695, H.M.S.O., London, 1949).

² *Age and Employment* (O.E.C.D., Paris, 1962).

³ Townsend, P., and Wedderburn, Dorothy, *The Aged in the Welfare State* (G. Bell and Sons, Ltd., 1965).

⁴ *Scientific Research in British Universities, 1963-64* (D.S.I.R. and British Council, H.M.S.O., 1964).

⁵ *Register of Social Research on Old Age, 1960-63* (National Corporation for the Care of Old People).

⁶ *Classified Bibliography of Gerontology and Geriatrics*, Supp. I, 1945-55; Suppl. II, 1956-61; edit. by Schock, N. (Stanford Univ. Press, 1951).

⁷ *Handbook of Social Gerontology: Societal Aspects of Ageing*, edit. by Tibbitt, E. (Univ. Chicago Press, 1960).

⁸ *Ageing in Western Societies: A Comparative Survey*, edit. by Burgess, E. W. (Univ. Chicago Press, 1960).

⁹ *Handbook of Ageing and the Individual: Psychological and Biological Aspects*, edit. by Birren, J. E. (Univ. Chicago Press, 1959).

¹⁰ Post, F., *The Clinical Psychiatry of Later Life* (Pergamon Press, 1965).

¹¹ Fleming, C. E., *Vita Humana*, 694, 177 (1963).

¹² Fleming, C. E., "The Middle-aged Bulge: A Survey of Age Structure in the Iron and Steel Industry", in *The Manchester Guardian* (now *The Guardian*), November 5, p. 9 (1957).

OBITUARIES

Prof. R. Spärck

WHEN Ragnar Spärck died on June 20 at the age of sixty-eight his passing left a gap in many circles, created by his central position in Danish zoology, his wide intellectual interests and his extraordinary personality. Few men in his profession have filled so many posts and performed such various duties.

For a period of almost forty years Spärck taught zoology in the University of Copenhagen, from 1937 as professor, occupying the old tradition-rich chair of systematic zoology in the University. The general acknowledgment in Denmark of taxonomy as a necessary background for more recent trends in zoology is largely due to his education of a whole generation of zoologists. Among the students he was equally popular as an inspiring teacher and a cheerful mid-point during social events and on excursions. His elegant appearance as University opponent at public defences of more than fifty theses was widely appreciated, even by the candidates.

Already as a student, Spärck had acquired a position at the University Zoological Museum. In the early 'twenties he put forward a bold plan for a new museum building; but it was not until he became professor and head of the Museum Council that he could put authority behind his plans. The Second World War postponed the erection of new and badly needed quarters, but in 1960 the Students' Laboratory and Study Collection was finished and three years later the large staff and rich collections of the Museum moved into an adjacent, well-planned building. He also played an active part in the consequent erection of a third, now almost finished, spacious building for comparative anatomy and experimental zoology.

Spärck's contribution to science falls mainly within two fields, marine biology and history. As a pupil of C. G. Johs. Petersen, he carried on his investigations of bottom communities, mainly in areas outside of Denmark. He wrote his doctoral thesis on the biology of the European oyster and served for the rest of his life as an adviser for the oyster cultivation in the Limfjord. Only to a lesser extent did he join marine expeditions (for example, in the Mediterranean during the *Dana* Expedition, in East Greenland, and in South Africa during the *Galathea* Expedition). However, both before and after the War he was very active behind a long series of Danish expeditions to East Greenland, the Iranian Gulf, West Africa, and not least the *Galathea* Deep-Sea Expedition. He was vice-president of the *Galathea* Committee and acted as the co-ordinator on the 'home-front', an extremely

important but not widely recognized position during accomplishment of large expeditions.

During his later years Spärck devoted much of his energy to the history of natural sciences in Denmark. A profound interest in the work and conditions of the predecessors, an extraordinary memory for details and a superior view for general lines was the basis for his important authorship of books and papers on historical subjects, for example, on the Zoological Museum and zoology teaching during 300 years, on early Danish expeditions, on the Natural History Society, and on Japetus Steenstrup, the leading Danish zoologist of the last century, with whom Spärck had so much in common.

Spärck's work for nature conservancy was legendary. He was a member of the Conservancy Council for almost forty years, the last sixteen years serving as a chairman. He knew his native country as few others and had an ability to make odds and ends meet in the not always easy negotiations with authorities and proprietors. He was also a leading force behind the Danish game sanctuaries, and, thanks to his initiative, a long series of papers on game biology have been published.

Spärck was well known abroad. He liked travelling and as a result of his broad interests and attainments he attended congresses and meetings within many fields of zoology and marine biology, museum work, nature conservancy and zoological gardens. He was a member of the International Committee of Zoological Congresses and the president of the Copenhagen Congress in 1953. He was also for six years president of the zoological section of the International Union of Biological Sciences and was a member of several other international committees (for example, on Zoological Nomenclature, the Zoological Record and Nature Conservancy).

TORBEN WOLFF

Mr. K. E. B. Jay, M.B.E.

MR. K. E. B. JAY, who was well known for his popular books on atomic energy, died at his home in East Hendred, Berkshire, on August 3, at the age of fifty-five. Kenneth Edmund Brian Jay was the son of Joseph Jay, a company secretary, of Amersham. From 1923 until 1929 he was educated at University College School, London, and then went on to University College, where he read physics. After only a year, his studies were interrupted by a long and painful illness, leaving him with a serious physical disability, which remained for the rest of his life. Jay resumed his studies in 1935, and in 1938 he graduated

with first-class honours in physics, and was awarded the Granville scholarship. After taking his degree, he began research on electron diffraction under Prof. E. N. da C. Andrade, who was much impressed by his character and ability.

At the beginning of the Second World War, Jay joined the Air Ministry Telecommunications Research Establishment (later the Royal Radar Establishment). It was here that his abilities as a writer first came to notice, and after a short spell of experimental work he was attached to the chief superintendent, Mr. A. P. Rowe, to prepare the establishment progress report and other documents. Rowe attached great importance to presenting technical information to the layman in an intelligible form, and he would not tolerate jargon; his views undoubtedly left their mark on Jay's future career. When the Telecommunications Research Establishment moved to Malvern, Jay set up an information room, where all forms of graphical presentation were used to bring out the contribution of radar to the successful conduct of the War. During this period Jay did much to strengthen the chain of communication which was so successfully established between the scientists in the Telecommunications Research Establishment and the serving officers in the Royal Air Force.

In 1945 Jay went to the Cabinet Office to work on the *Official History of the War*. There he conducted the researches and composed the narrative relating to the history of radar, which was incorporated in the volume on the *Design and Development of Weapons*.

Three years later, Jay joined the Atomic Energy Research Establishment at Harwell as information officer, and in this post he laid the foundation of the present information service. However, he retained his interest in the more popular presentation of scientific information, and when the declassification of atomic information began to gather momentum in 1951, he put forward a proposal for a book on the work of the Atomic Energy Research Establishment. This was published in 1952 under the title *Harwell, the British Atomic Energy Research Establishment*; it was the first serious description of post-war nuclear research in the United Kingdom, and was an immediate success. This success led to Jay's transfer to a full-time, scientific-writing post, and in the next few years there followed four more books: *Britain's Atomic Factories* (1954), *Atomic Energy at Harwell* (1955), *Calder Hall* (1956) and *Nuclear Power Today and Tomorrow* (1961). Although the visits to distant establishments were a serious physical burden, he perhaps most enjoyed writing the books on the factories and Calder Hall, where an account of the scientific principles involved was combined with a fascinating story of engineering initiative and enterprise.

In addition to these major works, Jay was responsible for many years for writing the chapters dealing with research in the Atomic Energy Authority's annual report, and for a series of progress reports on activities at the Atomic Energy Research Establishment prepared for internal use in the Authority. He also wrote an introductory chapter to the first volume of Mrs. M. Gowing's official history of the United Kingdom atomic energy project, *Britain and Atomic Energy, 1935-45*.

In all his writing Jay took immense pains both to keep in mind the needs of his readers for a clear and simple exposition, and also to preserve scientific accuracy. In this way he was able to achieve the objectives he set himself, and at the same time to retain fully the confidence of the scientists about whose work he wrote: nearly all his writing was based on first-hand discussion with them.

A catalogue of his written work, however, cannot adequately represent the impact which Jay made on Harwell, and the Atomic Energy Authority. He was an excellent lecturer both in the history of atomic energy and on the presentation of scientific information; he was an active worker for standardization of nomenclature, and

was chairman of a British Standard Institution sub-committee which produced their *Glossary of Terms used in Nuclear Science*. But perhaps most important, in the face of physical adversity he showed a cheerfulness and determination which were an example to all, and with his warm personality, he inspired the affection as well as the professional admiration of all who knew him. His award of the M.B.E. in 1956 was universally acclaimed.

Outside his office, as at work, Jay did not allow his disability to limit his activities. He was chairman of the Atomic Energy Research Establishment's Amateur Radio Club, an active worker for his parish church, and a member of the Science Writers' Guild. He was also author of some illustrated children's books on science, including *British Nuclear Reactors* (1960).

Science is becoming more complex, more expensive and more difficult to understand; at the same time, its understanding by laymen in industry and Government must increase if science is to be efficiently applied. Kenneth Jay had an outstanding ability to bridge this gap in communication between scientists and laymen: there is a great need for many more like him.

R. M. FISHERDEN

Dr. Duncan A. MacInnes

DR. DUNCAN A. MACINNES, member emeritus of the Rockefeller University, died on September 23, in Hanover, New Hampshire. He was eighty years of age and had been active in scientific research until this past summer.

Dr. MacInnes had been affiliated with the Rockefeller University since 1926 and had been a member emeritus since 1950. During his career, he distinguished himself in teaching and research in several universities and as a civilian with the Office of Scientific Research and Development during the Second World War.

Many honours were conferred on Dr. MacInnes. He received the Nichols Medal in 1942, awarded by the American Chemical Society to stimulate original research. In 1948 he received the Acheson Medal, awarded every two years by the Electrochemical Society. He was also honoured with the Presidential Certificate of Merit in 1948.

Dr. MacInnes's field of research had been largely directed towards the study of electrolytes in aqueous solution. As emeritus member, he had continued to conduct laboratory research.

Born in Salt Lake City, Utah, March 31, 1885, he received his B.S. degree from the University of Utah in 1907. In 1909 he received his M.S. degree from the University of Illinois and his Ph.D. degree in physical chemistry in 1911. During the next six years he was successively an instructor and an associate in chemistry at the University of Illinois. During 1917-26 Dr. MacInnes carried out physical chemistry research at the Massachusetts Institute of Technology, first as an assistant and then as an associate professor. In 1926 he became an associate member of the Rockefeller Institute (now the Rockefeller University), in 1940 a member, and member emeritus in 1950.

He was a member of the National Academy of Sciences, the American Association for the Advancement of Science, the American Chemical Society, the Electrochemical Society (for which he served as president during 1935-37), the American Philosophical Society, and the Harvey Society.

Prof. Hermann Staudinger

HERMANN STAUDINGER, whose death occurred on September 8, at the age of eighty-four, was a pioneer in the study of macromolecules and one of the founders of the subject of polymer chemistry. Born at Worms (Rhein) on March 23, 1881, he was educated at Halle, Darmstadt and Munich. In 1907 he became a lecturer in