

**The D. and F. Guggenheim Medal for Astronomy :
Prof. J. A. Van Allen**

THE Daniel and Florence Guggenheim International Medal for Astronomy has, for 1962, been awarded to Prof. J. A. Van Allen, director of the Department of Physics and Astronomy in the State University of Iowa (see also p. 939 of this issue). This prize, of the value of 1,000 dollars, is awarded each year by L'Académie Internationale d'Astronautique de la Fédération Internationale d'Astronautique to a person who has made outstanding contributions to the progress of astronomy over the past five years. Last year this prize was awarded to Sir Bernard Lovell, director of the Nuffield Radio Astronomy Laboratories at Jodrell Bank.

The Marconi Co. Chief of Research:

Mr. G. D. Speake

MR. G. D. SPEAKE has been appointed chief of research of the Marconi Co. He is now responsible to the Director of Research for the execution of research policy, and to the general manager for the overall administration of the Marconi Laboratories at Great Baddow, Chelmsford. This appointment follows that of Dr. E. Eastwood, the company's director of research, to the post of group director of research for the English Electric Group of Companies, of which Marconi's is a member. Mr. Speake joined Marconi's Wireless Telegraph Co., Ltd., in 1950, when he was engaged in radar systems research. In 1954 he was appointed chief of the Vacuum Physics Section of the Research Division, and two years later became chief of the Microwave Physics Group. He has been deputy chief of research since 1960. Educated at Adams Grammar School, Newport, Shropshire, and St. Catherine's College, Cambridge, Mr. Speake graduated with first-class honours in physics. Prior to joining the Marconi Co. he was instrument manager of the Plastics Division of Imperial Chemical Industries, Ltd., during 1947-50.

Electrical Engineering at Saskatchewan :

Prof. A. D. Booth

DR. A. D. BOOTH, head of the Department of Numerical Automation and reader in computational methods at Birkbeck College, University of London, has been elected to the chair of electrical engineering at the University of Saskatchewan. He leaves for Canada in September. Dr. Booth came to Birkbeck College in 1946, after a period at the University of Birmingham, during which he conducted research into methods of X-ray crystal structure analysis. The large-scale calculations involved in this aroused his interest in the design of computers and, after a period of study with von Neumann at Princeton on a Rockefeller fellowship, he returned to Birkbeck College and produced the first working computer with a magnetic drum store—the *ARC*, completed in 1949. This led to a later all-electronic machine, the *APE(X)C*, which formed the basis of one of the earliest successful computers, the *Hollerith 1201*. While in the United States, in 1947, Dr. Booth was responsible for the suggestion that the translation of languages could, in principle, be undertaken by a computer. Later he conducted pioneer experiments in this field using punched-card apparatus and, with a group of active young workers, including L. Brandwood, J. Cleave and others, produced programmes for the automatic transcription of Braille and for the machine translation of technical material. Dr.

Booth's recent activities have included computer applications in law and in medicine as well as in translation and in classical numerical analysis. As chairman of the committee which set up the British Computer Society as well as a member of Council of several learned societies, he has also been actively associated with the Institute for Aviation Medicine, H.M. Underwater Defence Establishment and International Computers and Tabulators, Ltd. Accompanying Dr. Booth to Canada will be his wife (Dr. K. H. V. Booth) and their two children, to all of whom go the best wishes of their many friends and colleagues in Britain.

**The Nuffield Institute of Comparative Medicine:
Dr. L. G. Goodwin**

DR. LEONARD G. GOODWIN has been appointed the first director of the Nuffield Institute of Comparative Medicine, which is being built by the Zoological Society of London in its Gardens at Regent's Park. Dr. Goodwin will take up his appointment on January 1, 1964; before that date he will act as consultant in the planning and launching of the Institute. The Institute was founded in 1960, with the aid of a grant from the Nuffield Foundation, in order that full use could be made, for purposes of comparative medical research, of the pathological and other material derived from the species of animals in the Zoological Society's Collections. Since 1958 Dr. Goodwin has been head of the Wellcome Laboratories of Tropical Medicine, having been a member of the staff since 1939. His research has been directed towards the discovery of new substances for the treatment of tropical and other parasitic diseases in man and animals, during the course of which he has conducted numerous expeditions to tropical areas.

Harwell Variable Energy Cyclotron

A NEW azimuthally varying magnetic field cyclotron to be constructed at Harwell will provide both internal and external beams of particles at high intensities and varying energies. External beam currents and maximum energies are expected to be 100 μ amp for protons (50 MeV), deuterons (25 MeV) and helium ions (50 MeV), and several μ amp for a variety of heavier ions at energies up to 10 MeV per nucleon. The machine, which is similar to others recently constructed at Berkeley and at Oak Ridge, will have a 200-ton magnet with 70-in. diameter pole faces; spiral ridges (3 per pole) will be used to shape the field to enable the higher proton energies to be attained. Extensive field surveys will be made, initially with model magnets, followed by a detailed survey when the magnet is installed late in 1963. The field will be variable from 6 to 17 kG and the frequency of the dee voltage over a three-fold range. The machine will be used principally for research in the fields of radiation chemistry, radiation damage and nuclear chemistry, and will be available for use by universities. It will aid the study of radiation effects at high rates of energy deposition, and of radiation damage involving changes in a large proportion of the sample, or where an individual atom suffers several successive displacements. The Rutherford Laboratory of the National Institute for Research in Nuclear Science is responsible for the design and construction of the machine, which will be operated by the Atomic Energy Research Establishment. The building and ancillary services are the responsibility of the Authority's Southern Works Organization;