

of the area of Western Australia has a flora containing nearly five thousand species or roughly five-sixths, and comprising a far greater diversity of genera. The flora of France comprises more than 884 genera compared with only about 560 genera in the flora of Western Australia. Still more significant is that South Africa, with a similar area to Western Australia, has more than twice the number of genera. Isolation

has thus on one hand permitted a high degree of specialization; but this has progressed in a much less varied biological community than would obtain in an area that had not been isolated and may well account in large measure for the vulnerability of the Western Australian flora to competition from immigrants when conditions of their environment are changed.

## NEWS and VIEWS

### Physics at Queen's University, Kingston, Ontario : Prof. J. K. Robertson

AFTER forty years of faithful and constructive service, Prof. John Kellock Robertson, head of the Department of Physics at Queen's University, Kingston, Ontario, has resigned. Prof. Robertson was born in Perth, Ontario, in 1885. He attended the local schools and entered the University of Toronto, where he graduated in 1907, and later served as demonstrator in the Department of Physics. He was appointed lecturer in physics at Queen's University in 1909, and except for two years when he was absent at Cambridge during 1912-13 and at the Imperial College of Science and Technology, London, as visiting professor during 1933-34, he has worked there ever since, becoming head of the Department in 1943. He received the degree of doctor of laws at the spring convocation this year at Queen's. For many years he was a member of the Faculties of Arts, Engineering and Medicine—something almost unique in Queen's administration. His lectures on optics were well known, but he achieved the greatest distinction in his courses for medical students. He was elected a Fellow of the Royal Society of Canada in 1926, served as secretary of Section III for several years and was elected president of that Section in 1942-43; finally, in 1944, he was elected president of the Society.

During his long career, Prof. Robertson has found time to write many papers and books. Among the books should be mentioned a volume on physical optics which appeared in 1929 and has gone through three editions. This is an exceptionally readable and comprehensive text and is a very useful introduction to the subject. His book on X-rays and X-ray equipment is designed primarily for medical students and practitioners. Of a less formal character is a charming little book entitled "Atomic Artillery", the title of which tells its scope. His research interest, as shown by numerous papers, has been in the field of discharges in gases and vapours excited by high-frequency and micro-waves. For many years he served on the editorial board of *Queen's Quarterly* and has contributed articles to this and other journals. Prof. Robertson will be remembered by many graduates as an enthusiastic and inspiring teacher. Those who were fortunate enough to work with him in his own laboratory have been profoundly impressed and form a group of progressive and resourceful young physicists. In his retirement he has left Canada to live with his daughter, who has resided in London for a number of years.

### Prof. B. W. Sargent, M.B.E.

DR. B. W. SARGENT, who is succeeding Prof. J. K. Robertson, leaves the post of assistant director of the Physics Subdivision, Atomic Energy Project, Chalk River, Ontario. Born at Williamsburg,

Ontario, in 1906, Dr. Sargent received his early education in local schools and at Queen's University, where he obtained his B.A. in 1926 and M.A. in 1927. Following graduation, he spent two years at Queen's doing research in radioactivity under the direction of Prof. J. A. Gray, Chown research professor. The award of an 1851 Exhibition Scholarship in 1928 enabled him to spend the next two years at Cambridge, where he continued research in radioactivity at the Cavendish Laboratory under Lord Rutherford. His work there on beta-ray spectra and related problems led to an important relation known as Sargent's Law. In 1930 he returned to Canada as a lecturer in physics at his *alma mater*. For the next thirteen years he combined teaching duties with research so successfully that in 1941 he was elected a Fellow of the Royal Society of Canada. In 1943 he was granted leave of absence to join the Atomic Energy Project, Montreal Laboratory, under the National Research Council of Canada. Resigning from the staff of Queen's University in 1946, he has remained with this group until the present time; during 1945-50 he was head of the Nuclear Physics Branch, first at Montreal, then at Chalk River, and since January 1, 1951, he has been assistant director of the Physics Subdivision there. Dr. Sargent is an authority on problems relating to neutrons and to heavy-water piles, and has published papers on these and other subjects.

### U.S. Navy Aviation Medical Acceleration Laboratory: Prof. Robert F. Rushmer

THE University of Pennsylvania and the U.S. Naval Air Development Center at Johnsville, Bucks County, Pa., have announced the appointment of Dr. Robert F. Rushmer, of the University of Washington, Seattle, Washington, to be superintendent of the Scientific Department at the new Aviation Medical Acceleration Laboratory of the U.S. Navy. This Laboratory is one of the five laboratories of the Naval Air Development Center, which has made an agreement with the University of Pennsylvania whereby there is to be mutual exchange of personnel and facilities between the two institutions. Dr. Rushmer has also been appointed professor of applied physiology in the Faculty of Medicine, University of Pennsylvania; others appointed to the Aviation Medical Acceleration Laboratory will also receive appropriate faculty appointments in the University. The new Laboratory is at Johnsville, approximately eighteen miles north-east of Philadelphia, and its main functions will be the study by naval and civilian medical authorities of man's reactions to acceleration under conditions closely resembling the stress patterns encountered in actual air combat. The Laboratory has been designed as a complete aero-medical laboratory, well equipped for work in physiology, animal surgery, radioactivity, biophysics, biochem-