

School (see *Nature*, 160, 704; 1947). Dr. Greenfield was a scholar of St. Mary's Hospital, and obtained first class honours in physiology in the B.Sc. examination of the University of London. After holding posts at St. Mary's in both medicine and pathology, he was appointed to the Department of Physiology, under the direction of Prof. A. St. G. Huggett. A year ago he became senior lecturer in experimental physiology. Dr. Greenfield at first worked with Dr. Killick (now Professor) on acclimatization to chronic carbon monoxide poisoning. More recently, he has shown great ingenuity in devising methods for the study of the circulation both in man and animals. During the War, these were used on behalf of the R.A.F. to study the effect of variations of g on the blood pressure. Since then Greenfield has worked with Huggett on fetal physiology and found a method for determining the rate of the blood flow in the umbilical cord. At a recent meeting of the Physiological Society he showed how the movements of a large bubble could be photographed and used to indicate the rate of the blood flow in a part of the body, as, for example, the hand. Dr. Greenfield's special knowledge of the physiology of the circulation will be of great value in Belfast, where work in this field has been in progress for some years.

Anatomy at the University of Glasgow :

Prof. G. M'C. Wyburn

GEORGE M'CREATH WYBURN has been appointed regius professor of anatomy in the University of Glasgow in succession to Prof. W. J. Hamilton, who has been appointed to the chair of anatomy at Charing Cross Hospital Medical School, London. Dr. Wyburn is a pupil of the late T. H. Bryce, and graduated at Glasgow in 1925: after holding appointments in various hospitals, he returned to Glasgow as demonstrator in 1929. He became senior lecturer in anatomy in 1936, and was acting head of the Department during 1944-45. His researches include work on embryology, with special reference to bone formation, on the endocrinological aspects of reproduction, and on tissue-grafting (of skin, cartilage and cornea in particular). He was awarded the Struthers Gold Medal and Prize in 1939 for embryological research, and again in 1947 (with Dr. Paul Baeschig) for work done during the War on the repair of peripheral nerve injuries.

Mathematics at Queen Mary College, London :

Dr. G. C. McVittie, O.B.E.

THE appointment of Dr. G. C. McVittie to the new chair of mathematics at Queen Mary College, University of London, is of considerable interest, not only because he will be the first professor of mathematics at this College, but also because his appointment will go a long way towards strengthening the present somewhat meagre representation of applied mathematicians among the appointed teachers of the University. In pre-war days, Dr. McVittie was well known for his researches into relativistic theories and in particular for his trenchant criticisms of some aspects of certain forms of the cosmological theory. During the Second World War, Dr. McVittie was seconded for special service with the Meteorological Office. Here he was engaged in a number of important problems. As a result of his successful activities both as a man of science and as an administrator he was recently awarded the O.B.E. Since his return to academic life, Dr. McVittie has developed a new interest in the theoretical basis of meteorology and

has been made a member of the Meteorological Research Committee. He has also become, with Prof. Ferraro, one of the editors of the new *Quarterly Journal of Applied Mathematics and Mechanics*, the first number of which has recently appeared, and which seems destined to have an important influence on the future development of applied mathematics in Great Britain. Dr. McVittie has also been very actively interested for many years in problems of theoretical astronomy and has been one of the editors of *The Observatory*.

Mathematical Statistics at the University of Sao Paulo :

Mr. W. L. Stevens

MR. W. L. STEVENS has been appointed professor of mathematical statistics in the University of Sao Paulo, Brazil. Mr. Stevens worked under Prof. R. A. Fisher, at the Galton Laboratory, University College, London, during 1935-41. He then joined the staff of the Statistical Department, Rothamsted Experimental Station, for a few months on urgent war work prior to leaving for Portugal to take up a lectureship in statistics at Coimbra at the request of the British Council and the Foreign Office. In 1944 he returned to Britain and took a post as statistician with Imperial Chemical Industries, Ltd., Billingham. In 1947 he joined the staff of the Admiralty Statistical Department under Mr. H. L. Seal. He has been chiefly concerned with the development of statistical methods in the fields of biological and agricultural experimentation, and has also made contributions to the methods applicable to quality control of industrial products.

New Atomic Pile at Harwell

RATHER less than a year has passed since the Atomic Energy Research Establishment at Harwell put into operation 'Gleep', the first atomic pile to be built in Great Britain. Now a second and more powerful pile has been completed and put into operation. Its rated output is 6,000 kW., and it has been designed primarily as an experimental tool, to provide as many facilities as possible without unduly complicating the engineering of the structure. In addition, when operating at rated output, the pile should be able to produce, by transmutation of inactive elements, all the artificial radioactive isotopes required in Britain by medical and other research workers. Like 'Gleep', the new pile is a graphite-moderated air-cooled pile. The uranium rods are enclosed in aluminium cases which lie in channels in the graphite. Cooling air is drawn through the channels by several large electrically driven exhausters. The whole pile is surrounded by a concrete shield several feet thick, to protect workers from radiations, and the cooling air is discharged up a chimney stack 200 ft. high. There are about forty holes in the shield, giving access to the strong fluxes of neutrons in the interior of the pile. These neutron fluxes, many times more intense than can be obtained in any other way, are required for many experiments in nuclear science, both in fundamental and in applied research. Thus, for example, the applied research programme will include an investigation of the effect of irradiation by neutrons on the properties of materials, to provide information about materials used in the construction of piles. The experimental holes are also the means by which inactive elements are placed in the pile for transmutation into radioactive isotopes. Surrounding the pile structure are the control rooms and laboratories used by the