

Prof. Woollard was educated at the University of Melbourne and at University College, London. From 1919 until 1923 he was senior demonstrator, and from 1923 until 1927 assistant professor of anatomy at University College, London. Since 1927 he has been professor of anatomy in the University of Adelaide. His publications include "Recent Advances in Anatomy" (Churchill, 1927) and "Scientific Basis of Anatomy" (translated from the German; Bale, Son and Danielsson, 1927).

Mr. L. C. Robbins has been appointed as from Aug. 1 to the University chair of economics tenable at the London School of Economics. Mr. Robbins entered the London School of Economics in 1920 and on graduation was appointed research assistant to Sir William Beveridge, and later lecturer in economics. His published work includes numerous papers on the theory of population, the theory of value, and other problems of economic theory.

The following doctorates have been conferred: D.Sc. in Chemistry on Mr. J. E. G. Harris (University College), for a thesis entitled "The Soledon Reaction"; Mr. A. J. Turner, for a thesis entitled "The Relation between Atmospheric Humidity and the Breaking Strengths and Extensibilities of Textile Fabrics before and after Weathering", and other papers; D.Sc. (Engineering) on Mr. Arthur Winstanley, for a thesis entitled "Roof Control when working Coal Seams by Longwall".

The University Studentship in Physiology for 1929-30, of the value of £100 and tenable for one year in a physiological laboratory of the University or of a school of the University, has been awarded to Miss Margaret Hill.

The Chadwick Trustees have made a grant of £500 towards the cost of equipping the new laboratory of the Department of Municipal Engineering at University College, and also a grant of £200 a year for three years to the Department.

APPLICATIONS are invited by the Association of Surgeons of Great Britain, 17 Wimpole Street, W.1, for a surgical scholarship of the value of £350. The object of the scholarship is to enable the holder to pursue a definite line of research or to study surgery in specified clinics, either at home or abroad, and candidates in their applications should state the line of research or study that they propose to pursue. The latest date for the receipt of applications is Sept. 20.

THE Ramsay Memorial Fellowship Trustees have made the following awards of new fellowships for the session 1929-30 at the centres named: British Fellowship, tenable for two years, to Mr. O. H. Wansborough-Jones (University of Cambridge); British Fellowship, tenable for one year only, to Mr. R. J. Phelps (University of Oxford); Canadian Fellowship to Dr. L. M. Pidgeon (University of Oxford); Japanese Fellowship to Prof. Y. Nagai (University College, London); Spanish Fellowship to Don Andres Leon y Maroto (University College, London); Swedish Fellowship to Mr. E. K. Troell (Rothamsted Experimental Station, Harpenden). The Trustees have renewed the following fellowships for the session 1929-30: Dr. H. Bienfait (Netherland Fellowship at the Imperial College of Science and Technology, London), and Dr. P. Maitland (Glasgow Fellowship at the University of Cambridge). Sir Robert Waley Cohen has been appointed vice-chairman of the Trust in succession to Sir John Brunner, deceased, and the Hon. Henry Mond has been appointed a Trustee.

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Calendar of Patent Records.

July 28, 1758.—The production of zinc on a commercial scale was first undertaken by William and John Champion, who erected works at Bristol about 1740. John Champion's patent for extracting zinc from blende, a method of manufacture which did not become general until the middle of the nineteenth century, was granted on July 28, 1758. The Bristol works were later transferred to Swansea, which became the centre of the British trade.

July 30, 1571.—Richard Mathew was the first Englishman to make fine cutlery, an art which he had learnt while travelling abroad. On July 30, 1571, he was granted a patent for the "making of certain haftes called Turkye haftes for knyves, weapons, and other things by hym lately devised in our realme to be made of dyvers peces of horne of one or of sundry coloures mixed and garnished betwene those peces with yellow or white plate", but the patent was successfully contested by the Cutlers' Company before the Privy Council on the ground "that it hath been and will be the overthrow of the cutlers within the city".

July 31, 1781.—One of the early competitors for the prize offered by the Paris Academy of Sciences in 1775 for a practicable process of manufacturing artificial soda was Bryan Higgins, whose invention was patented on July 31, 1781. The process did not overcome the difficulty, but this and other early attempts paved the way for Leblanc's successful solution of the problem a few years later.

July 31, 1846.—Lord Armstrong's invention of the hydraulic crane, which was the pioneer in the application of hydraulic power for lifting purposes, and from which evolved the hydraulic elevator, was patented on July 31, 1846. It was first introduced for lifting the stone in a Yorkshire quarry and was rapidly adopted.

August 2, 1695.—On Aug. 2, 1695, there was granted to Daniel Quare, a noted London clockmaker and the inventor of the repeater watch, a patent for "a portable weather glasse or barometer which may be removed or carried to any place though turned upside down without spilling one drop of the quick-silver or letting any aire into the tube". The Clock-makers' Company took exception to the patent and informed its members that anyone who was proceeded against on account of the patent would be defended, but the quarrel must have been of short duration, for Quare became Warden of the Company in 1705 and Master in 1708.

August 2, 1800.—The rifling-machine for guns dates from the patent of Thomas Gill, gunmaker of Birmingham, whose patent is dated Aug. 2, 1800. The barrel is fixed on a reciprocating frame, and the cutters of the required width are attached to a long bar which passes through the barrel and is rotated in centres at each end by means of a rack and pinion mechanism. No record of a machine having been made is, however, known.

On the same day, Aug. 2, 1800, there was granted to Mathias Koops a patent for his newly invented method of manufacturing paper from straw, etc. The patent was voided by the non-enrolment of a specification, but the process is described in a specification enrolled on a second patent formally granted the following year, though Koops petitioned that a specification might be dispensed with. In 1800, Koops published "An historical account of the substances which have been used to describe events and convey ideas", which was printed on paper made from straw and had an appendix on paper made from wood.