Agric and Fisheries, Board of Agric for Scotland). The investigators concluded that the methods of experimentation were not sufficiently critical to enable an answer to be given to the question of whether testicular grafting can improve the fertility of old stud bulls or the production of wool by the offspring of grafted rams. In any event the economic importance of such experiments for Great Britain is probably only slight. It is necessary to bear in mind that a testicular graft, to give satisfactory rejuvenation, must not only maintain the

secondary sexual organs and characteristics in full function and exert the normal influence of the testis upon the cells of the body, but also stimulate the subject's own organ sufficiently to enable it to produce living spermatozoa: the former effect can be produced by secretions from the graft, but only the subject's own testis can render him fertile. Testicular grafting is a useful method of investigating scientifically the secretory function of the testis: its usefulness as a practical measure must still be considered not proven.

## Obituary.

Prof. Georg Kassner.

R. GEORG KASSNER, emeritus professor of pharmaceutical chemistry and chemical technology, died at Münster on Mar. 30, 1928, at seventyone years of age. From the Chemiker-Zeitung we learn the following particulars of his life. A native of Lüben in Silesia, Kassner studied at Basel, Zurich, and Breslau, and received his first appointment in 1884 at Breslau under Prof. Poleck. In 1891 he was appointed professor of pharmaceutical chemistry and chemical technology at the University of Münster, where for thirty-five years he directed the training of students of pharmacy. He also took an active interest in municipal affairs, and served for fifteen years on the Town Council. In his teaching Kassner laid stress on the use of volumetric methods of analysis, and his methods were adopted in many other institutes.

The work which Kassner had begun at Breslau led to a method of preparing oxygen from the air by means of calcium plumbate. One of the chief disadvantages of this method was the fact that it involved the use of carbon dioxide, and when Linde's liquid air process was discovered Kassner recognised its superiority. But, being convinced that further progress in the economical production of oxygen from air would be on chemical lines, he set to work to devise improvements, and in 1911 he succeeded in finding an inexpensive method of preparing both oxygen and nitrogen from air by means of plumboxan, a mixture of sodium plumbite and sodium manganate. This process works at 400° C., a much lower temperature than was needed for his older process, and, moreover, the use of carbon dioxide was eliminated.

During the War, Kassner discovered in the double compound of barium metaplumbate and barium manganate a useful catalyst for the atmospheric oxidation of ammonia to nitric acid at 500° C. In addition to the work on lead compounds, he published numerous papers on other chemical subjects.

## DR. E. F. J. LOVE.

The University of Melbourne has suffered a loss in the death, on Mar. 8, of Dr. E. F. J. Love, formerly senior lecturer in natural philosophy. A brother of Prof. A. E. H. Love, he was born in Weston-super-Mare in 1861; he became a scholar of St. John's College, Cambridge, and, after a short period as lecturer in physics in Birmingham under Prof.

Poynting, he was appointed to Melbourne in 1888. While he maintained a close interest in all branches of physics, his main interest centred in geodesy and thermodynamics. In 1893 he published an account of a measurement of g at Australian stations, and at the time of his death he was secretary of the geodesy committee of the Australian National Research Council. Dr. Love was president of Section A of the Australasian Association for the Advancement of Science in 1907, when he spoke on the thermodynamics of the voltaic cell, and during his teaching work in the University of Melbourne he came to be recognised as an authority on thermodynamics. Acoustics was another interest, and during the last few years he has applied the results of Sabine to the remedying of some local halls that had been acoustically defective. He was president of the Victorian branch of the British Astronomical Association from 1899 until 1903. At the end of 1927 he retired from active teaching duties, and he then presented to the University a valuable collection of scientific periodicals and works on geodesy.

WE regret to announce the following deaths:

Prof. Henri Andoyer, professor of astronomy at the Sorbonne in Paris since 1903, and an associate of the Royal Astronomical Society, on June 12, aged sixtysix years.

Prof. Franz Keibel, director of the anatomical and biological institute, Berlin, and a member of the Prussian Academy of Sciences, author of the "Normentafeln" of vertebrate development, and with Franklin P. Mall of "Handbuch der Entwicklungsgeschichte der Menschen", on April 27, aged sixty-seven years.

Prof. Charles Moureu, professor of organic chemistry at the Collège de France and an honorary fellow of the Chemical Society, aged sixty-six years.

Mr. Robert Ridgway, member of the National Academy of Sciences, curator of the division of birds in the U.S. National Museum since 1876, who was a past president of the American Ornithological Union and an honorary member of the British Ornithological Union, on Mar. 25, aged seventy-eight years.

Dr. Charles E. de Medicis Sajous, professor of applied endocrinology in the graduate school of medicine of the University of Pennsylvania, and president in 1917 of the American Association for the Study of Internal Secretions, on April 27, aged seventy-six years.

Mr. M. R. Oldfield Thomas, F.R.S., for many years assistant in charge of Mammalia, British Museum (Natural History), on June 16, aged seventy-one years.