were raised otherwise. He was knighted in 1900, following his first Lord Mayoralty, and his public services were recognised by the Royal University of Ireland in 1907 by the bestowal of the degree of LL.D.

His connection with astronomy, though subordinate to the interests just outlined, was by no means negligible. He was elected a Fellow of the Society on 1892 May 13, and in his earlier days he started to make a telescope which he found it necessary to engage professional assistance to complete. With this instrument he made many observations for his own edification, and he was always keenly interested in the wonders of the skies. Through the kindness of his sons, Mr. A. and Mr. W. Jaffé, the telescope has lately been presented to the University of London Observatory.

Jaffé was an accomplished linguist and generously offered his services as interpreter to the Society at more than one international gathering.

He leaves a widow (formerly Miss Paula Hertz), with whom he celebrated their golden wedding in March last, and two sons.

Sir Bhawani Singh Bahadur, K.C.S.I., Maharaj Rana of the Rajput State of Jhalawar, was one of those enlightened rulers who, in practice as well as theory, regard their high office as a responsibility rather than a privilege. Intensely interested himself in intellectual pursuits covering a wide field, one of his chief concerns was the dissemination of western knowledge and culture among his subjects. He was born on 1874 September 4, a descendant of the first Faujdar or Commander of Troops of Kotah in Jhalawar, and was educated at the Mayo College, Ajmere. He came to office in difficult circumstances, his predecessor, Zalim Singh, having been deposed in 1896 after repeated admonitions and temporary suspensions of power by the British Government for gross mal-administration and self-indulgence. The State was reconstituted, and certain portions, always claimed by Kotah, were transferred thereto. Bhawani Singh was selected from among the collateral relatives to be the new ruler, and was duly invested with powers in February 1899. His anxieties were increased by the occurrence of a terrible famine in the following year, but the young ruler rose to the occasion and took over the work of relief in person, dealing very effectively with the difficult situation. He immediately initiated a systematic policy of reform and reconstruction, and had the good fortune to be assisted by capable officers.

His first visit to Europe took place in 1904, and his experiences on that occasion were recorded in a diary which formed the basis of his book Travel Pictures, published in 1912, "primarily for the benefit of my people in Jhalawar, whose ideas of European civilisation are of the vaguest." The book is an interesting example of the wide curiosity and power of observation which characterised him throughout his life. Thereafter he frequently visited the western world, and in 1925 he made a journey round the globe, taking full advantage of the intellectual amenities afforded by the different countries which he
visited. After the death of his wife, in 1918, he spent the greater part of his time in this country with his foreign minister, Pundit Shyam Shankar, returning to India only at the call of administrative duties, and finally owing to the financial strain involved in residence abroad. When, in 1920, his son, Kumar Rajendra Singh, who now succeeds him, came to Oxford as an undergraduate, he seized the opportunity of systematising his knowledge, and was himself also admitted by the University on special terms to an undergraduate course, which unfortunately his imperative return to India precluded him from completing. He became a well-known figure in intellectual circles in England, and his charm of manner, ready hospitality, and eagerness to help to the best of his power in any project for the advancement of knowledge and culture endeared him to a wide circle of friends. He died suddenly on board the steamer "Ranpura" on his way from Bombay to Europe in 1929 April.

The many reforms which he introduced in his State included the grant of urban municipal self-government and the creation of a bicameral legislature on a broad electoral basis such as few States have approached. His palace, built to his own designs, combined Indian architecture with the latest western equipment, and contained the finest privately-owned library in Rajputana and one of the best in India. Many years ago he established a society in Jhalawar for translating and studying the works of Shakespeare. On the outbreak of war he not only gave much financial assistance to the allied cause, but characteristically organised weekly lectures to his people designed to spread correct information and to be an antidote to the prevailing tendency to alarming rumour. In recognition of his war service his hereditary salute was raised from eleven to fifteen guns. By every means in his power, and at every opportunity, he sought to promote cordial relations between Britain and India.

Among his very wide interests, astronomy always occupied a prominent place. So far back as 1901 he was sufficiently familiar with the face of the sky to be an independent discoverer of Nova Persei, though he was anticipated by Dr. Anderson in this matter. When, soon after the termination of the war, he came to live mainly in England, he availed himself of the opportunity of getting into close touch with astronomers, becoming, for example, as well as a Fellow of the Society, a member of the Norman Lockyer Observatory Corporation, to which he subscribed liberally. He arranged for private lessons in astronomy, which he took daily so far as his many duties and other engagements allowed, and was never ashamed to acknowledge ignorance of even elementary matters if thereby he could clarify his ideas. Indeed, the mental characteristic which most impressed his tutor was his intellectual humility and anxiety to understand fundamental principles thoroughly before turning to the superficially more interesting cosmogonical speculations so tempting to the dilettante. Whenever a difficult point was grasped, he sought for some illustration by which he might bring it home to the minds of his people. Nor did he hesitate to seek self-improvement in other respects. Although he spoke English almost
perfectly he would beg to be corrected in any misuse or mispronunciation of English words, and would accept interruption for such a purpose with gratitude, repeating to himself the correct form until he had mastered it. This remarkable quality is not often met with in such a degree, and the influence which it gave him in promoting the welfare of his people will not easily be replaced.

He was elected a Fellow of the Society on 1912 December 13.

SIR GEORGE KNIFFS, C.M.G., eminent as a statistician and economist, was born at Sydney, Australia, on 1858 June 13. He began his career as a surveyor and civil engineer, and from 1877 to 1889 was on the staff of the Trigonometrical and General Survey of New South Wales, afterwards becoming President for four years of the New South Wales Institution of Surveyors. Following this he became an independent lecturer in the Department of Engineering, and subsequently an acting Professor of Physics in Sydney University. He retained the last-named post until 1906, when he became Commonwealth Statistician. In this capacity he brought out the Commonwealth Year Book, which, on account of its comprehensiveness and accuracy, is regarded as one of the best statistical publications in the world. He also devised the mathematical formulae on which the Commonwealth land and income taxes are assessed. In 1921 he was appointed Director of the Commonwealth Institute of Science and Industry, and he remained in this post until his retirement from public life in 1926. In recognition of his services to Australia he was created C.M.G. in 1911 and knighted in 1923.

Kniibbs took a practical interest in many departments of knowledge and research, his wide acquaintance with foreign languages making him a valuable member of the numerous international congresses which he attended, often as a delegate of the Australian Government. In 1897–98 he was President of the New South Wales section of the British Astronomical Association. He was President of the Royal Society of New South Wales in 1898–99, and for nine years was honorary secretary of that body. In 1923–24 he became President of the Australasian Association for the Advancement of Science, and he served as Royal Commissioner for all branches of education for New South Wales from 1902 to 1906; for insurance for Federated Australia from 1909 to 1910; and for trade and industry during the War from 1914 to 1915.

Among other of his many activities might be mentioned his services as consulting member of the committee for munitions of war during the late struggle, and his chairmanship of the Royal Commission on the taxation of ground leaseholds in 1918–19. In 1923 he was Vice-President of the Pan-Pacific Congress.

Kniibbs contributed to the scientific press numerous monographs on pure mathematics, geodesy, and geodetic instruments as well as larger works. Among the latter are The Mathematical Theory of Population, The Census of Wealth, and (published shortly before his death) The Shadow of the World’s Future. The last-named book is a study of the relation of the growth of world population to food pro-