

JAMES CAVAN was the only son of the late Lieut.-Colonel Philip Charles Cavan, 30th Regiment, and was born at Portland Place, London, on 1856 September 29. He was educated at Harrow and Christ Church, Oxford.

Throughout his life Mr. Cavan was keenly interested in astronomy and in the construction of instruments. At his country seat at Eaton Mascott Hall, Shrewsbury, he built a well-equipped private observatory, with a $7\frac{1}{2}$ -inch photo-visual by Cooke & Sons, a transit instrument, and large chronograph with control of his own design.

He devoted much time to the public business of the county of Shropshire, was a member for six years of the County Council, chairman of the Salop Infirmary, and for two years president of the West Shropshire Conservative Association.

He married, on 1886 August 25, Amy Mabel, daughter of W. H. Patterson, Esq., of Garranard, Co. Down, and leaves a son and two daughters. He died at Eaton Mascott on 1911 April 25.

He was elected a Fellow of the Society on 1896 March 13.

LORD EDWARD SPENCER CHURCHILL, youngest son of the sixth Duke of Marlborough by his third marriage, was born on 1853 March 28. He was educated at Eton and at Magdalene College, Cambridge. He held a commission for nine years in the Isle of Wight Artillery Militia, and was a Deputy Lieutenant for the county of Worcester. He was keenly interested in astronomy, electricity, and microscopy.

He married in 1874 September, Augusta, daughter of the late Major G. D. Warburton, M.P., who survives him, with one son and two daughters. He died in London after a short illness on 1911 May 5.

He was elected a Fellow on 1891 December 11, but contributed no papers to the Society.

WILLIAM COLEMAN was born 1824 January 4 in the parish of St. Mary, Dover. He was the owner of Solton Manor, about four miles from Dover, and he occupied his leisure in superintending this estate until failing health led him to dispose of it shortly before his death on April 9, 1911. Mr. Coleman had a strong interest in astronomy, and was for many years an active observer and a regular attendant at the meetings of the Society. He erected at his residence, The Shrubbery, Buckland, near Dover, an observatory, provided with an equatorial telescope of 8-in. aperture, by Messrs. Cooke & Sons, and devoted himself especially to the measurement of double stars. His first contribution to the publications of the Society was a paper printed in vol. liii. of the *Memoirs*, containing his double star measures made in the years 1893-1896. The list included 161 pairs, and of some of these long series of measures were given. A similar paper dealing with the measures of 131 pairs made by him in the years 1897-1899 was published in vol. liv. of the *Memoirs*. Mr. Coleman was a

most conscientious observer, and spared no pains to secure accuracy in his results. The stars dealt with by him were well selected, and included many pairs of which no recent measures existed.

By his will Mr. Coleman gave power to his executors to offer his observatory, telescope, and accessories to the Royal Astronomical Society, by whom they were gratefully accepted; the instruments have been lent to the Rev. Theodore E. R. Phillips, who has re-erected them at Ashted, Surrey.

Mr. Coleman was elected a Fellow of the Society 1884 February 8.

ARTHUR COTTAM was born at Camberwell on 1836 April 9. At the age of fifteen, his father having died the year before, he entered the office of Woods and Forests, where he remained till he retired when nearly sixty years of age. The routine of a Government office was not what he would have chosen, and every leisure moment was devoted by him to scientific and artistic pursuits; he thus accomplished a large amount of interesting and valuable work.

Mr. Cottam's talents were many and varied. He was an accomplished artist and musician; and his scientific interest included astronomy, microscopy, entomology, and botany. It was one of his characteristics to spare no pains in bringing his work to the highest state of perfection of which it was capable, and the delicacy of his manipulation is evidenced by the exquisite mounting and arrangement of his various collections. In microscopical slide mounting he had few rivals. He was one of the oldest members of the Quekett Microscopical Club, was recognised by the members as one of the authorities on Fossil Diatomaceæ, and was a constant exhibitor at their meetings. He was also one of the founders and the first Hon. Treasurer of the Hertfordshire Natural History Society, whilst he was living in Watford, where he resided for thirty-seven years.

One of Mr. Cottam's closest friends was the late Mr. N. E. Green, like himself an artist as well as an astronomer. Both men took a leading part in the formation of the British Astronomical Association. Mr. Cottam was one of the original joint secretaries, his department being the work connected with the observing sections. He held this office for two years, and the thoroughness with which he carried out his duties had much to do with the good start made by the Association on this side. He took a very warm interest in the Jupiter section, and zealously supported Mr. Waugh, its first director, in his work. He himself directed the section during the apparition of 1900, and compiled the memoir of that year's observations.

Star charting was the astronomical work to which he devoted the most attention, and here his skill in draughtsmanship enabled him to produce very beautiful results.

His "Charts of the Constellations from the North Pole to between 35 and 40 degrees of South Declination" are well known.