

OBITUARY.

The Council regret that they have to record the loss by death of the following Fellows and Associates during the past year:—

- Fellows:—Captain Edward Barnes.
 John Cassells.
 Lieut.-Col. W. St. L. Chase.
 Samuel Chatwood.
 Bryan Cookson.
 Henry Zouch Darrah.
 Thomas Gordon.
 Eugen von Gothard.
 Frederic Newton.
 John Peter George Smith.
 William Ford Stanley.
 Captain Henry Toynbee.
 Jesse Young.
- Associates:—George Washington Hough.
 Simon Newcomb.

JOHN CASSELLS was a well-known amateur astronomer in the West of Scotland, a prominent citizen of Glasgow, and an officer of long service in the 3rd Lanark Volunteers, of which regiment he became a Major, and received the Volunteer decoration. He went to Vadsö in 1896 August with the British Astronomical Association to observe the total eclipse, and at the time of his death he was President of the West of Scotland branch of the Association.

He contributed no papers to the Society. He died on 1909 July 16.

He was elected a Fellow on 1903 January 9.

BRYAN COOKSON was the eldest son of the late Norman C. Cookson, of Wylam-on-Tyne, and a grandson of Robert Stirling Newall, F.R.S., of Gateshead; he was born on 1874 April 23. He was educated at Harrow and at Magdalen College, Oxford, and early showed the genius for astronomy which he had, perhaps, inherited from his grandfather. On leaving Oxford he travelled for two years, and then decided to devote his life to astronomy. In 1898 he went up to Trinity College, Cambridge, as a research student, and began at the Cambridge Observatory the excellent work which has been cut short by his early death. His first published work was, "On the accuracy of Eye-observations of Meteors, and the determination of their radiant point" (*M.N.*, 1901 January)—the thesis by which he obtained the degree of Bachelor of Arts at Cambridge. Meanwhile he had designed and

obtained a new form of floating photographic zenith telescope, with the purpose of investigating the constant of aberration and the variation of latitude. An account of this instrument is given in *M.N.*, 1901 March. After some preliminary work with it, he decided to suspend the investigation, and to accept the invitation of Sir David Gill to spend some time at the Royal Observatory at the Cape. There he carried out with the heliometer an elaborate investigation on the orbits of the four Galilean Satellites of Jupiter, on which he based a new determination of the elements of the satellites and of the mass of Jupiter. A further investigation, based on photographs, provides the means of comparing the merits of the heliometric and photographic methods. The two memoirs, his principal published work, are in the *Annals* of the Cape Observatory, vol. xii.

On his return to England in 1903 Mr. Cookson installed his zenith telescope in a new building, and began a series of photographs which extended over four years. Five groups of stars were chosen, transiting near the zenith at nearly equal intervals of time, and so arranged that evening transits of one group could be photographed about the same epoch as morning transits of the next. The apparent change of latitude between evening and morning gave a correction to the assumed aberration constant; when this was determined, each group contributed to a determination of the variation of latitude. At Mr. Cookson's death this long and important series of photographs had been completely measured and reduced, but the discussion was unfinished. The duty of completing its preparation for press has been undertaken by colleagues at the Cambridge Observatory.

As his work with the zenith telescope approached completion, Mr. Cookson turned his attention to astrophysics, and in 1908 he was appointed to the newly created post of Assistant in Astrophysics at Cambridge. In conjunction with his uncle, Professor Newall, he then began the extensive laboratory researches on spectra, obtained under varying conditions, which were in progress when in 1909 June the illness began which caused his death, after much suffering, on 1909 September 13, at Hawick.

Mr. Cookson married, in 1907 December, Millicent, daughter of Mr. Thomas Elliot, of Sunderland, and leaves an infant son. His early death has robbed astronomy of one of the keenest and ablest of its younger workers.

He was elected a Fellow on 1894 December 14, and served on the Council from 1906 till his death.

HENRY ZOUCH DARRAH was born on 1854 August 1, at Landown, India. He was educated at Trinity College, Dublin, and entered the Indian Civil Service in 1877. He served chiefly in the United Provinces, but was lent to Assam as Director of Land Records and Agriculture, and was also sent on special duty in the Central Provinces and in Burmah. He was for some time Commissioner of the Allahabad District, till promoted to a seat