

Obituary.

William London.

The death of Mr. W. London, of Quay House, Woodbridge, Suffolk, is announced as having occurred on June 16th last. Mr. London was an original Member of the Association, and possessed, in addition to several smaller instruments, a 15½-in. reflector, with which he made occasional observations. He has bequeathed this telescope and its accessories to the "Seckford Hospital and Woodbridge Endowed Schools" for the use of the schools. He was a member of the expedition to Vadsö in August 1896, organised by the Association, for the observation of the total solar eclipse of that date.

Cecil Albert Schurr.

Lieutenant C. A. Schurr, R.N.V.R., enlisted in the Air Service in August 1914, was promoted to warrant officer July 1915, and to lieutenant in December 1915. Since the last promotion he had held the position of officer-in-charge of complete aircraft at the R.N.A.S. central supply depôt, an extremely responsible post. Elected a Member of our Association on November 26, 1913, he was a member of great promise, and was specially interested in calculations on the orbits of Comets. Thus he noted that the elements of Delavan's Comet indicated an occultation of the comet by the Moon on 1916, June 22, and drew the attention of observers to it. When on holiday at Margate he was seized with heart trouble owing to severe overwork and died on June 27.

H. W. Smithers.

We have to report with regret the death of Mr. H. W. Smithers, an original member and a benefactor to the Association, who died on March 30 last at Quebec, aged 77. Mr. Smithers began his business career with the engineering firm of Messrs. Peto and Betts, at the age of 15 years, and attained to a position of much authority in the railway world here and on the other side of the Atlantic. Mr. Smithers established an observatory about 35 years ago at his house, Baddow Court, Great Baddow, Essex, which he transferred to Ashurst Place, near Tunbridge Wells, in 1901. He was specially interested in the mechanical side of astronomy and possessed clocks and other instruments of that kind of value. His principal instrument was the 9½-in. Cooke refractor, formerly the property of Mr. Crossley, of Bermerside, Halifax, and now in the possession of an observer living in India.

Isaac William Ward.

We regret to record the death of Mr. Isaac Ward as the result of a street accident in Belfast, in which city he had resided for many years. He succumbed to his injuries on 11th October, at the advanced age of 82 years. Mr. Ward possessed a 4.3-inch Wray equatorial, and was noted for his success in the detection of very faint objects, and for his remarkable observations of the satellites of Uranus and Neptune made with this small aperture. His astronomical work vouches at once for the keenness of his vision and the excellence of the object-glass employed. Thirty-one years ago his name came prominently before astronomers, as he was the first to detect the "Nova" in Andromeda, which appeared in August 1885. He was an original Member of this Association.

Oskar Backlund.

The death of Dr. O. Backlund is announced as having occurred on 30th August last, at the age of 70 years. As long ago as 1878 Dr. Backlund commenced his researches on the motion of Encke's Comet, which have made his name famous throughout the astronomical world. Notwithstanding the distractions due to administrative duties arising from his official position, first as Vice-Director and finally (since 1895) as Director of the Poulkovo Observatory, he persevered in the prosecution of these researches throughout the greater part of his active scientific career. He had the satisfaction of bringing his work to a definite conclusion and of receiving the recognition due to the successful completion of a research entailing such an enormous amount of labour.

Dr. Backlund was elected a Foreign Associate of the Royal Astronomical Society in 1898, and was awarded the Gold Medal of the Society in 1909. He was elected a Foreign Member of the Royal Society in 1911.

Percival Lowell.

By the death of Prof. Lowell, at the comparatively early age of 61 years, we lose one of the most energetic and enthusiastic workers in our science. Born in 1855, and educated at Harvard University, he spent a considerable portion of his early life in foreign travel, and it was not until the year 1894 that he founded his Observatory at Flagstaff, Arizona. Here, in an ideal climate, and aided by his 24-in. telescope, he devoted himself in the first place to the study of the physical features of Mars, and in a lesser degree to those of the other planets. The theory that he formulated with regard to the artificial nature of the so-called "Canals" of Mars brought him into controversy with leading astronomers on both sides of the Atlantic; but he, to the end, maintained his position with imperturbability, and appeared to be unshaken in his views by

the arguments brought to bear against them. Fortunately his measures and drawings and photographs have a permanent value independent of the conclusions to which he considered that they led. Besides the *Publications* of his Observatory and papers in periodicals, he published some books on his favourite subject, of which *Mars as the Abode of Life* (1909) and *The Evolution of Worlds* (1910) may be mentioned.

Prof. Lowell was appointed non-resident Professor of Astronomy in the Massachusetts Institute of Technology in 1902, and was awarded the Janssen Medal of the "Société Astronomique de France" in 1904. He organised expeditions to Tripoli for the observation of the total eclipse of the Sun of May 1900, and to a station in the Andes to secure photographs of Mars near the time of the opposition occurring in 1907.

Correspondence.

Crepuscular Rays.

I was interested in Miss A. Grace Cook's letters in the June number of the *Journal* on the subject of an Anthelion, and the discussion on the same which took place at the meeting, because this seems at first sight to be in some way connected with crepuscular rays, a phenomenon which I have studied for many years, and often under favourable circumstances. By an anthelion—which is a term rather strange to me—it is presumed that an image of the Sun is meant, appearing on a point of the celestial sphere exactly opposite the Sun's place at the time. If this definition is correct, I would ask how the phenomenon could be seen "on the morning of April 6th, at 7^h 10^m, G.M.T." On that day the Sun rose (at Greenwich, which is near enough for the purpose) at 5^h 27^m, and at the hour named must have been high above the horizon. Hence the anthelion point was correspondingly below. Some explanation seems required here.

The President gave an accurate account of the phenomenon of crepuscular rays as seen by him in Switzerland, and mentioned that the rays were seen to converge in the form of a luminous patch at a point opposite the Sun's place. I have many times observed these converging rays, about the time of sunset, in the brilliant skies of the Uplands of South Africa, but cannot recall observing any luminous patch or image at the point of meeting of the rays. Now these crepuscular rays may, I think, be attributed to the Sun's rays—nearly horizontal at the time—passing through either (1) gaps in a low-lying stratum of clouds situated on the horizon, or (2) through irregularities or gaps in a range of mountains or hills lying on the contour, margin, or limb of the Earth as presented to the Sun at the time. I do not