

he possessed a small telescope and specialised on observations of variable stars, being particularly interested in stars of the Algol type. Although not having the opportunity for acquiring deep scientific knowledge, he always studied *Monthly Notices* with great interest, even though much of the contents seemed far away from the astronomy that he could indulge in. He was elected a Fellow of the Society on 1892 June 10.

He was an enthusiastic chess player and a keen shot, and competed at Bisley for many years; during the Great War he served with the Inns of Court Rifle Regiment. He married Harriett Louisa Oakeshott, by whom he is survived.

HENRY HAYDEN WATERS, of Rivermead, Durham Road, Harrow, Middlesex, was born at Coventry in December 1880 and died on 1939 September 14. His business activities were in the timber trade, and since a year or two before the Great War he had been associated with the firm of Vincent Murphy & Co., originally in Liverpool and more recently in London. From his father he inherited a deep and abiding interest in astronomy, and throughout his life this was his main hobby. He became a member of the Liverpool Astronomical Society in early manhood and served for a time as its secretary. In 1908 he joined the British Astronomical Association and was for some years a member of the Council. In the latter part of the 1914-18 war period he spent some time in the United States and visited Japan, Manchuria and Eastern Siberia. He took advantage of his stay in America to visit several of the larger observatories. Waters had a well-equipped observatory at his home in Harrow, the principal instrument being a fine 5-inch Zeiss clock-driven refractor belonging to the British Astronomical Association. This was housed in a spacious dome, and though, like all dwellers in the neighbourhood of London, he was increasingly incommoded by the constant extension of street-lighting and chimney smoke, he, and the friends who were glad to have the privilege of observing with him, were able to obtain many excellent views of the Moon, Mars, Jupiter and Saturn. But the branch of observation to which Waters gave most of his attention was the photography of meteors and the improvement of methods of recording and timing their trails. He presented several papers on this subject at meetings of the British Astronomical Association, and was an active member of the Meteor and Photographic Sections of that body. In 1921 he published a very useful and informative little book entitled *Astronomical Photography for Amateurs*.

For the last eighteen months of his life he was to a large extent incapacitated by a painful illness, but even then he occupied himself with mechanical and electrical experiments connected with this work, and towards the end with observations of time, temperature and barometric pressure from which he hoped to be able to isolate and determine the effects of temperature and pressure variations on the performance of his synchronome free-pendulum clock. Some years earlier he devised an effective equatorially mounted automatic meteor camera with which six plates could be exposed in sequence