

tions, obtaining as many as a thousand plates a year, and in the measurements and reductions. Between 1935 and 1950 four volumes of the Cape Annals were published, giving details of the measurements and of the derived parallaxes of about 1,600 stars.

Shortly before Jackson was appointed to the Cape, the determination of the positions of stars south of  $-30^\circ$ , by means of photography with a wide-angle lens, had been commenced and the first zone,  $-30^\circ$  to  $-35^\circ$  had been photographed. The work of observation continued all the time he was at the Cape and, by the time he retired in 1950, all the zones to  $-80^\circ$  (except the Cape Astrographic Zones  $-40^\circ$  to  $-52^\circ$ ) had been photographed, the positions of the comparison stars observed with the transit circle, the measurement of the plates completed to about  $-68^\circ$ , and the results for two zones prepared for publication. The plans included the determination of the magnitudes of the stars and for this purpose a Schilt photometer had been obtained. This part of the programme had not been started when Jackson arrived at the Cape. On the appointment of R. H. Stoy as Chief Assistant, the photometry programme was entrusted to him and as a result the photometry of southern stars, which had been in a very unsatisfactory state, has now been established on firm foundations.

During Jackson's tenure of the post of Chief Assistant at Greenwich he took part in three expeditions for the observation of total eclipses of the Sun. The eclipse of 1927 June 29 was observed at Giggleswick, Yorkshire. The weather conditions for this eclipse, the first since the time of Halley in which the track of totality had crossed England, were generally unfavourable, but at Giggleswick the sky was clear; the totality was short and the Sun was very low, but photographs of the corona were obtained. Jackson was in charge of expeditions to observe the total eclipses of 1929 May 9 at Alor Star, Malaya, when observations were spoilt by thick cloud, and of 1932 August 31 at Parent, Quebec, when clouds prevented spectroscopic observations with a slit spectroscope. Plans had been prepared for an expedition from the Royal Observatory, Greenwich, to Calvinia, Cape Province, to observe the total eclipse of 1940 October 1, the programme being the determination of the displacement of stars in the vicinity of the Sun predicted by Einstein. The outbreak of World War II made it impossible to send a party from Greenwich, but the equipment was sent to the Cape and used by Jackson. The eclipse was observed in a clear sky, but the definition proved unfortunately to be very poor; the images of the stars were in consequence too diffuse to permit of a satisfactory determination of the displacement.

Jackson was elected a Fellow of the Society in 1913. He served as Secretary from 1923 to 1929, and as President from 1953 to 1955. He was awarded the Society's Gold Medal in 1952. He was elected a Fellow of the Royal Society in 1938. On his retirement from the Cape in 1950 he was made a Companion of the Order of the British Empire. He then returned to England and made his home in Ewell, Surrey. He died on 1958 December 9 after a brief illness. In 1920 he married Mary Beatrice Marshall, who survives him. They had one son who died shortly after birth.

H. SPENCER JONES.

JACK GORDON MILLER was born in Russia in a village about 200 miles north of Odessa in 1890 November. His original name was Pinchas Mogilvsky.

In 1904 he migrated to England and joined a sister who was living in London. He became apprenticed to a firm of electrical engineers and during World War I he worked as draughtsman and then designer to Cubitt and Company being responsible for the electrical control gear on the large cranes which the Company manufactured.

In 1913 he married Edith Emilie Draphin, a concert pianist. After World War I Miller joined his father-in-law in the wholesale tobacco business and later set up on his own. He conceived the idea of opening tobacco kiosks on railway stations and his first kiosk was built at Covent Garden underground station, he himself carrying out most of the actual construction work. Although this first venture was not entirely successful, Miller persevered with his scheme and in a short while the idea met with popular support and his Company expanded. When his nephew-in-law Yehudi Menuhin came to England, Miller and his wife helped in many ways to launch the young violinist on his public concert career.

For many years Miller had a strong interest in astronomy and joined the British Astronomical Association in 1933. He was particularly interested in solar phenomena and he observed the total solar eclipses of 1948 May and 1954 June. His own observations were carried out with a coudé refractor of 9-inch aperture. He published papers on Newtonian gravitational theory and on the formation of the planets in the *Journal of the British Astronomical Association*.

He was well-known to many astronomers, both professional and amateur. Miller was a generous companion and had a strong desire to assist the furtherance of astronomical research. He purchased for the Society the National Geographic Society/Palomar Observatory Sky Survey, and a cabinet in which to keep it. He also gave the furnishings for the room in which the atlas is now housed on the Society's premises.

Miller was elected a member of the National Liberal Club in 1933 and was for twenty years a member of the Eccentric Club. His wife died in 1951 and he is survived by a son and daughter. He was elected a Fellow of the Society on 1953 January 9 and died on 1958 June 15.

COLIN A. RONAN.

WALTER MOSS was born in Leeds in 1878. He received his early scientific education at the High School there, now the Cockburn High School. After a period as assistant in its chemical laboratories he proceeded to the Royal College of Science, South Kensington, studying physics under Sir Arthur Rucker and chemistry under Sir William Tilden. He entered commercial life for a short time but in 1902 returned to South Kensington to the Solar Physics Observatory, as a junior assistant observer under Sir Norman Lockyer, working mainly with the spectroheliograph. In 1913 he moved to Cambridge, when the Solar Physics Observatory was transferred there, and was placed under Professor H. F. Newall. He became a senior assistant observer in 1929, holding that post until his retirement in 1945. He was for a time during World War II the senior member of staff in residence in Cambridge and under war time regulations he continued to serve for two years after reaching the normal retiring age.

His published papers were on the development of solar flares and prominences and on the relative intensities of hydrogen and helium lines in the spectra of prominences. His main contribution to solar physics was a study of the distribution and movements of solar prominence areas during a complete sunspot cycle.