# OBITUARY

## SIR HAROLD SPENCER JONES, K.B.E., F.R.S.

Harold Spencer Jones was born in 1890, and after a distinguished career at Jesus College, Cambridge, was appointed Chief Assistant at Greenwich in 1913, a year before even his election as a Fellow of his College. In spite of an interruption during the 1914 war, he rapidly familiarized himself with all sides of the Observatory work, and it was here that he wrote his well-known *General Astronomy*. In 1923 he succeeded S. S. Hough as H.M. Astronomer at the Cape, and his ten years there were extremely productive. He began by using the Cape occultations of 1880 to 1922, which had just been reduced by his predecessor, to make a re-determination of the elements of the Moon's orbit; Brown's Theory had not been used in the reductions, and he had to concern himself closely with the many small differences between Hansen, Newcomb, and Brown. This work was completed by 1925, and the principal corrections which he derived agreed well with Brown. Among the results was a value for the solar parallax of $8''{\cdot}805 \pm 0''{\cdot}005$. Together with J. Halm, he then made a determination of this quantity from observations of Mars near the 1924 opposition. There followed discussions of the orbital elements of Mars from Cape heliometer observations of 1899–1924; of the proper motions of all Cape fundamental stars still outstanding; of Greenwich observations of the Sun from 1836 to 1923; and of the secular motion of the pole from Cape circumpolar observations of 1918 to 1924. In 1926 appeared the first of his important papers on the rotation of the Earth; he confirmed very convincingly the original surmise of Newcomb that the principal 'non-gravitational' fluctuations in the longitudes of the four inner planets, and in that of the Moon, were all only apparent, and arose from a variation in the Earth's axial rotation, or (as we now say) from the difference between Universal Time and Ephemeris Time. 1927 brought a large work on spectroscopic binaries, together with a re-determination of the solar parallax from stellar radial velocities, a method originally proposed by Gill and valuable because its systematic errors ought to be completely different from those of all other methods; Spencer Jones' figure was $8''{\cdot}803 \pm 0''{\cdot}004$. There followed the photographic magnitudes of 20 843 stars in the Cape Astrographic Zone; a study of the Procyon system (using both positional and radial-velocity data); a study of the masses of the four inner planets; and in 1929 the important Revision of Newcomb's Occultation Memoir, giving new values for a number of basic constants; the solar parallax appears as $8''{\cdot}796 \pm 0''{\cdot}004$. He had already inaugurated the Cape work on stellar parallaxes, and had made himself an expert on photographic astrometry; in 1928, with the favourable Eros opposition of

1930–31 approaching, the Leyden I.A.U. Assembly appointed a special Commission, with Spencer Jones as President, to organize a world-wide attack on the solar parallax by direct observation of the parallax of Eros. This work engaged a considerable fraction of his energies for the remainder of his time at the Cape, and for seven years afterwards; the observations which plainly had the most weight were also those taken at the Cape under his direction.

In 1933 he succeeded Sir Frank Dyson as Astronomer Royal, and in spite of the load of new duties he found time to serve as President of our Association from 1934 to 1936. During his first years two instruments were erected which had already been planned: the Cooke Transit-Circle, and the Yapp 36-inch Reflector; he supervised and analysed the long programme of division-error determinations on the former. In 1937 he was elected President of the Horological Institute, and he was re-elected to this office every year until his death. He also served as President of the R.A.S., arranged a much closer integration of the Nautical Almanac with the observatory, published a thorough revision of his *General Astronomy*, and completed his final paper on the rotation of the Earth. By 1939 he was making serious efforts to get the observatory moved from Greenwich altogether.

The second war brought the loss of several senior staff, the closing-down of all major instruments, and the evacuation to Abinger, Bradford-on-Avon, and Bath of nearly everything except the Solar and Meteorological Departments; he managed, however, to complete the Eros work. The resulting parallax, $8''{\cdot}790 \pm 0''{\cdot}001$, stands off rather disappointingly from the best previous values, including the mean (roughly $8''{\cdot}801 \pm 0''{\cdot}0025$) of all his own; in spite of its high internal consistency, it has not won general acceptance, and there is possibly some source of systematic error in off-meridian parallax work as such. Previous dynamical determinations existed, from 1921 and 1933; each had yielded $8''{\cdot}799 \pm 0''{\cdot}001$, but they were not reconcilable in other respects and could not be confidently accepted; what reconciled them, and made possible Rabe's 1950 result ($8''{\cdot}7984 \pm 0''{\cdot}0004$), was the application of the E.T. – U.T. differences which Spencer Jones himself had done so much to establish.

The early post-war years brought an austere return to the battered and filthy Greenwich premises, but also the official approval for the move to Herstmonceux; this was almost complete by the time he retired. During the move, the 30-inch reflector was given a separate mounting from the 26-inch refractor, and both had major overhauls. The new Photographic Zenith Tube was also designed and erected, and was in successful use before he retired. In 1945–48 he carried through the assimilation of all observatory grades into the regular Scientific Civil Service, a change which greatly increased the number of posts reserved for scientists with high university qualifications. The same period saw his universally-welcomed selection as first post-war President of the I.A.U. He took a leading part in negotiating Treasury approval for the Isaac Newton Telecope, and organized a great

[*continued on page 89*

deal of preliminary design study for that instrument. In 1947 he became the first President of the new Institute of Navigation, and he twice served as Master of the Clockmakers' Company. After his retirement at the end of 1955 he served first as Editor for I.G.Y. publications and then as Secretary-General to the International Council of Scientific Unions.

His energies were not, however, confined to scientific fields; he had a high sense of public duty, and served on the governing bodies of several charitable institutions. His personal and official relationships were always marked by tact and charm, and there was no aspect of the observatory's work, or of any of his other activities, in which his knowledge was not recognized and his advice gladly welcomed. He died suddenly, on 1960 November 3, and he will be greatly missed in a very wide personal circle, as well as as in many scientific ones. He was the holder of the Royal Society's Royal Medal, the Gold Medals of the R.A.S. and the Horological Institute, and a great number of foreign honours. He was knighted in 1943 and created K.B.E. in 1955.

R.D'E.A.

Published and Sold by