## OBITUARY

## Frederick Richard Cripps

By the death of Mr F. R. Cripps on 1954 January 29, the Association has lost a computer who, although little known to its members, had earned for himself an international reputation. Born in 1869, Cripps was educated at Haberdasher's Aske's School, where he became Head Boy. On leaving school he joined the Civil Service, serving for a short time in the Land Registry Office in Dublin. Returning to London he joined the staff of the Supreme Court Pay Office, where he remained until his retirement in 1931. During the Boer War he served with the City of London Imperial Volunteers, and it was shortly after his return to this country that his interest in astronomy was aroused. He joined the Association in 1904, and was at first a member of the Variable Star Section, but his flair for mathematics, which had shown itself while he was still at school, became combined with his interest in astronomy. Thus computing became his absorbing hobby, occupying a large proportion of his time, and keeping his brain keen and active long after he had retired from the Civil Service.

The first prediction of the return of a comet which Cripps attempted was that of Comet Daniel for 1909. With the help of Crommelin some 200 observations were collected, and a definitive orbit computed. The perturbations were then calculated by means of Crommelin's Tables, a very close approach to Jupiter at aphelion causing a great deal of trouble. Ultimately the comet was found to have been delayed by eight months in its return, an amount which seems to have been considered exceptionally large. At any rate, no great reliance was placed on the result, and the comet, which was unfavourably placed at that return, was not actually recovered until 1937. It is an interesting coincidence that this very comet, which Cripps always felt could have been found earlier, had his confidence and experience been greater, was also the last for which he gave a prediction. This was in 1950, when failing eyesight compelled him to relinquish the work which he loved. The writer will always remember with pleasure that it was in this year that he was able, on behalf of the Association, to award Mr Cripps the Walter Goodacre Medal and Gift for his outstanding services to the Association. It is doubtful if any of those who were present on that occasion could possibly have guessed the medallist's age.

Every year, for more than forty years, Cripps was engaged in computing the return of one, and sometimes two comets. One of his earlier tasks had been to assist Cowell and Crommelin in their classic investigation of the motion of Halley's Comet, which was followed back to 240 B.C. The meticulous care with which Cripps undertook such a task was evident in everything that he did. His results were always reliable because he took every possible care to check every figure, making light of labour that would appal many a computer today. No perturbation work can ever be considered as satisfactory if it is based on a doubtful orbit, and Cripps always checked his starting values, spending many hours in collecting observations with which he would correct the initial elements. He would often make a preliminary investigation of the perturbations by means of Crommelin's tables before he undertook a more thorough computation by an Encke scheme. As a typical example of his thoroughness, it might be men-

orbit) from the heliocentric longitude  $\lambda$  was always checked by forming a table of  $L - \lambda - \Omega$  and differencing these values.

Such men are rare. A confirmed user of logarithms, Cripps never aspired to the use of a calculating machine, but to the last his work was a model of peat.

tioned that his calculation of the longitude L of a planet (referred to the comet's

the use of a calculating machine, but to the last his work was a model of neatness, accuracy and good computing practice. At his passing, we salute the last of the old school of computers,—I. G. PORTER