

OBITUARY

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There is always a particular sense of loss in the passing of a pioneer, and by the death of Dr. L. J. Comrie, the astronomical world has lost one who gave it new standards, new methods, and a new outlook on its more difficult mathe-

tical problems. Born in New Zealand in 1893, Cromie received his early training as a chemist at Auckland University, taking his M.A. in 1916, with Honours in Chemistry. Yet already he had shown evidence of a wider knowledge, for he was Senior University Scholar in Electricity in 1914, and also held the Sir George Grey Scholarship for Science; while it was at this period also that his interest in astronomy began to take shape. He joined the B.A.A. in 1915, and the 4-inch equatorial which the University possessed must have been an added source of pleasure and interest.

Comrie served with the New Zealand Expeditionary Force in the first World War, and lost a leg in France. With the end of the war, he was able to proceed as a Research Student to St. John's College, Cambridge, where he studied mathematics and astronomy. In 1920 he was elected to an Isaac Newton Studentship, and proceeded to his doctorate in 1923. The main part of Comrie's Ph.D. thesis consisted of a very thorough investigation of the occultations of stars by planets, and this work (which has never been published) contains a complete historical account of the subject, and a detailed study of the best methods of predicting these phenomena. The subject was one that interested him throughout his life, and he had always kept his notes up-to-date, and even quite recently was engaged in editing the work, so as to arrange it in a form suitable for publication. It is to be hoped that this important document will some day appear in print.

During the Cambridge years, Comrie was asked by the Council of the B.A.A. to undertake the predictions of the phenomena of Saturn's satellites, which had been predicted at the previous passage of the Sun and Earth through the Ring-plane in 1907 by Hermann Struve. The task proved to be one of considerable magnitude, and as a result, Major Hepburn suggested that a Computing Section should be formed to undertake work of this kind as a team. Comrie organised the members of the new Section, of which he became the first Director, into a body of computers whose work has ever since been recognised as of outstanding merit. In 1921 the Section produced the first *Computing Memoir*, and in the following year, the first number of the annual *Handbook* appeared under Comrie's editorship. This publication, which is now in its thirtieth year, has always been of a standard which makes it of interest even to the professional astronomer. Throughout this long period, Comrie maintained his interest in the *Handbook*, and successive editors have frequently had the benefit of his advice, and the tonic of his criticism.

After spending two years in the United States as an Assistant Professor at Swarthmore College, Philadelphia, and at Northwestern University, Evanston, Illinois, Comrie returned to England to take up an appointment at the Nautical Almanac Office, where he became Deputy Superintendent in 1926, and Superintendent in 1931. In these years, in the face of the greatest difficulties, he completely revolutionised the work of the Office, installing machine methods of computation, and raising the standards of production to a new level. Many of the methods of computing which he devised are still standard practice, and he will long be remembered for his use of the National accounting machine for interpolation, and for building up printed tables from second and higher differences. The improvements in the *Nautical Almanac* which he introduced (and which may be best appreciated in comparing the 1931 *N.A.* with those that preceded it), were but a part of the important contributions which Comrie made to professional astronomy in this period. The adoption of a standard

equinox in celestial mechanics, and the production of the volumes of *Planetary Coordinates*, are a clear indication of the way in which he foresaw the changes that were to be brought about by machine methods; and the annual volume of *Apparent Places of Fundamental Stars* also had its origins in this period, when Comrie was Chairman of Commission 4 (Ephemerides) of the International Astronomical Union.

It was in the making of tables, however, that Comrie's highest gifts were displayed, and this mainly in the last fourteen years, when, having left the Nautical Almanac Office, he founded the unique commercial computing organisation known as Scientific Computing Service. In addition to dealing with every possible kind of calculation, both for private individuals, commercial undertakings and Government departments, Comrie's outstanding knowledge of computing by mechanical methods and of typography was extended to the production of some of the finest tables of our time. His ability in this direction was recognised last year by his election to a Fellowship of the Royal Society. His name is perhaps most strongly connected with the tables produced by the British Association Mathematical Tables Committee, on which he served for many years as Secretary. He was also associated during these years with similar Committees in America, and for the last two years of his life he was a member of the Royal Society Committee on Mathematical Tables.

Tables which bear Comrie's name are of a standard which has never before been attempted, checked and re-checked to be free from errors, easy to read, easy to interpolate, and no serious computer can afford to be without them. A computer is as good as his tables—and a computer who is as good as Comrie's tables is good indeed. His last production,* published only last year, was a shortened version of his magnificent six-figure tables,† and even an inexperienced computer can hardly fail to find in this comprehensive volume everything that he could possibly require.

Comrie was a tremendous worker, and his physical disabilities, greatly aggravated in the last two years by a serious illness, could do nothing to lessen his dynamic outlook on life. To him, the best that one could give was only the best for the present—there was always something in the future to strive for. He was generous in his praise of others, if they merited praise, and stimulating in his criticism. The present writer received each year, shortly after the publication of the *Handbook*, some sort of criticism from L.J.C. This usually took the form of a post-card covered with concise and thoughtful notes; but one copy of the 1946 *Handbook* will always remain a treasured possession, since it is annotated from cover to cover in Comrie's characteristic handwriting, in the green ink which he generally used. If the *Handbook* has gained an international reputation, it is because Comrie would have nothing but the best. He will be remembered for his tables and for the methods of computing which he devised; but it is in the *Handbook* that Members of the B.A.A. will find a permanent memorial to one whose high standards and intellectual brilliance first found expression in the annals of our Association.—J. G. PORTER.

* "Chambers's Shorter Six-figure Mathematical Tables", by L. J. Comrie; Edinburgh and London. W. and R. Chambers, Ltd., 1950. Price 12s. 6d.

† "Chambers's Six-figure Mathematical Tables", by L. J. Comrie; Two volumes. Vol. I Logarithmic values; Volume II Natural values. Edinburgh and London. W. and R. Chambers, Ltd., 1949. Price 42s. each volume.