

G.A.VAN BIESBROECK

On Saturday 1974 February 23, in Tucson (Arizona), G.A. Van Biesbroeck, one of the world's leading astronomers, died. The astronomical community felt his death as a shock not only because it represented the end of a long series of important contributions to astronomy from an exceptional colleague, but also because this community was losing a congenial figure, a man who at an age of more than 90 was still frequently claiming observation time on the largest telescopes.

Born in Ghent (Belgium), on 1880 January 21, Georges-Achille Van Biesbroeck completed his education at the Atheneum and at the University of his birth-town and became a civil engineer. On 1902 September 20 he joined the Brussels Department of Roads and Bridges where he remained for six years. However, Van Biesbroeck was attracted by astronomy at an early age. Even in 1902 he was working as a volunteer astronomer at the Royal Observatory of Belgium. In 1903, he passed a special examination in astronomy at the University of Ghent. The same year, he was a prizeman in the University competition in astronomy. In 1905 he spent one month at the Royal Observatory at Greenwich and seven months at the Observatory of Heidelberg. A second tour of foreign countries gave him the opportunity to work eight months at the astrophysical observatory in Potsdam and to study at the University of Berlin. On 1904 February 7 he left the Belgian administration of Roads and Bridges and became assistant astronomer at the Royal Observatory of Belgium at Uccle in Brussels.

Already G. Van Biesbroeck had made many observations with the 38-cm aperture refractor of the observatory, and these were published in Volume IX of the *Annales de l'Observatoire Royal de Belgique*. In 1915 he was invited to pursue his observations with the large 40-in. refractor of the Yerkes Observatory (Williams Bay), USA. By 1917 he was firmly established in the USA with his family whom he had managed to bring over the Dutch border during the First World War.

He then devoted himself to work on double stars, comets, asteroids, satellites, variable stars, novae, etc. Many important discoveries resulted from his untiring activity, and his world-wide reputation rapidly increased. Examples of this activity, and only a few can be mentioned here, are the following: discovery of 11 numbered asteroids; discovery of three comets (two with hyperbolic and one with elliptical orbits); many thousands of measurements of double stars, made over a period of 60 years, and the discovery of new binaries. The latter included the companion of BD +4° 4048, which is considered as the star of lowest

known luminosity. He also computed many orbits for visual binaries and comets as well as the orbit of Nereid (Neptune II), which led him to a very good estimate for the mass of Neptune.

At the age of 65 (1945 July), G. Van Biesbroeck retired and became Emeritus Professor of Astronomy at the University of Chicago. Retirement is an important milestone in the life of any man, but for him it did not signify the end of his career. On the contrary, he added some new fields of research to his previous activity. As an example we can mention his observations of the Einstein effect during solar eclipses in Brazil (1947), Korea (1948), and in the Sudan (1952). In 1949–50 the Belgian Government sent him, together with P. Sanders of the Royal Observatory in Brussels, to the Belgian Congo for a site survey in connection with the establishment of an astronomical observatory. He also participated in the establishment of several American observatories. In 1963 he started a new series of observations and computations at the Lunar and Planetary Laboratory (Tucson) where its Director, Dr G.P. Kuiper, persuaded him to undertake a new career.

As a mark of recognition of his work, the participants of the 1966 IAU colloquium organized at Uccle in Brussels and entitled 'On the Evolution of Double Stars', decided to dedicate the proceedings to G. Van Biesbroeck. He appeared, still looking young, at a more recent IAU colloquium on 'Orbital and Physical Parameters of Double Stars' organized at Swarthmore (Pennsylvania) in 1972 April.

G. Van Biesbroeck collected many distinctions and medals: the Golden Medal for astronomy from the Royal Danish Society of Sciences, two Donohae medals of the Astronomical Society of the Pacific, Doctor Honoris Causa of the Free University of Brussels and many others. He also received several prizes, among which were the Franklin L. Burr prize of the National Geographic Society (1952); the Saintour prize of the Academy of Sciences of Paris (1956) and the Watson prize (1958). He was a Fellow of the Royal Astronomical Society from 1924 and honorary member of the Royal Astronomical Society of Canada. Since 1973 the asteroid No. 1781 has been named 'Van Biesbroeck', following a decision of the IAU to honour this eminent astronomer.

G. Van Biesbroeck was an exceptional astronomer; his physical endurance, particularly during night work, the sharpness of his sight, his great resistance to the rigours of life, his universal knowledge, his intelligence based on long experience were the most typical qualities of this great astronomer. All who have had the chance to meet him, or even better to work with him, will remain aware of his exceptional example of life.

S. AREND and J. DOMMANGET