

In this work he struck new ground by referring the stars to their galactic latitude and longitude. This far-reaching research was done by him single-handed. "It was his eye that measured the lines and his was the pen, that worked out the calculations."

HIS BENEFACTIONS

McCleean generously employed his fortune in the advancement of astronomy. At a cost of £12,500 he founded the Isaac Newton Scholarships in the University of Cambridge for the encouragement of research in astronomy and spectroscopy. In 1894 he presented the Cape of Good Hope Observatory with the large Victoria telescope, fittings and dome, with all the latest improvements. He later gave the same Observatory a prismatic camera. He

made a large collection of illuminated manuscripts, early printed books and several other art-treasures, all of which he bequeathed to the Fitzwilliam Museum at Cambridge. He also made large money bequests to that University, to the University of Birmingham and to the Royal Astronomical Society for furthering research in astronomy and physics.

HIS HONOURS

McCleean received the honorary LL.D. of Glasgow in 1894. Next year he was elected Fellow of the Royal Society. In 1899 he was the recipient of the Gold Medal of the Royal Astronomical Society, the highest honour in the gift of that Society.

McCleean died at Brussels from pneumonia, November 8, 1904.

ASTRONOMICAL NOTES.

Eclipse of the Sun.—An annular eclipse of the sun will occur on December 2-3, but will be invisible in India. The path of the annular eclipse lies entirely in the Pacific Ocean, commencing in the sea to the south of Japan and ending near California in the western coast of the United States of America.

Planets during December 1937.—Venus continues to be a bright object visible early in the morning before sunrise. It is moving east-wards and at the end of the month, will rise about three quarters of an hour before the sun. On December 1, there will be a close conjunction with the moon, the planet being about 2° north of the moon. Mercury can be seen for the greater part of the month near the western horizon immediately after sunset.

Three major planets, can be conveniently observed during the early part of the night. Mars and Jupiter are situated in the western sky while Saturn will cross the meridian at about sunset. The minor axis of the ring planet will be only $1^{\circ} 2'$

at the beginning of the month and is gradually increasing. On December 2, Saturn will be at one of the stationary points and will attain quadrature with the sun on December 20.

Comets.—Encke's comet (which was detected on September 2, by Jeffers at the Lick Observatory) is approaching the earth and getting brighter; on November 6, it was of the twelfth magnitude. The comet is situated in the constellation Cygnus and rapidly moving towards southwest. According to Matkiewicz ephemeris (Pulkowa circular 20) the comet will be in Aquila in the early part of December and will be bright enough to be seen with a binocular. It will reach maximum brightness on December 25, but owing to the proximity of the sun and the low altitude at sunset this will not be a suitable time for observing the object.

The period of the comet is a little over three years. It has been observed at every return since its discovery in 1808.