

the magnetic rotatory power, he delved into the chemical constitution of substances. In the words of Prof. Bruhl of Heidelberg, this work of Perkin "created a new branch of science".

HIS HONOURS

Perkin's services were widely recognised. He received several medals and several

honorary degrees. In July 1906, the Golden Jubilee of Perkin's creation of the coal-tar dyeing industry was celebrated, practically all the countries participating in it, and he was knighted. Perkin Medals were founded.

After four days' illness, Perkin died of double pneumonia at his residence at Sadbury, July 14, 1907.

ASTRONOMICAL NOTES.

Planets during April 1938.—Mercury can be seen as an evening star early in the month; on April 21 it passes conjunction with the Sun and about the end of the month, will be visible in the eastern sky, just before sunrise. Venus can be seen low down in the west for about an hour after sunset; it will closely approach Uranus on April 15, when the angular distance between the two planets will be only 9 minutes of arc.

Mars will not be well placed for observation during the month, being too near the horizon in the western sky at sunset; it will be in conjunction with the Moon on April 3, the planet being 42' south of the Moon at the time. Jupiter will be a fairly bright object in the sky in the latter part of the night, rising about 2 hours after midnight. Saturn also can be seen near the eastern horizon about an hour before sunrise. The ring ellipse is gradually widening, the major and minor axes being 36" and 5" respectively about the middle of April. Neptune is situated about 2° to the north-west of the star τ Leonis and can be picked up with a binocular.

Occultations of Stars by the Moon.—The observations of occultations provide valuable material for determining the errors of the Moon's position as given in the Ephemeris. From a discussion of the

results of 1405 occultations observed at various places in 1935 (*Astronomical Journal*, 1076), Prof. E. W. Brown and Dirk Bronwer have found the mean correction to be $+3''.41$ in longitude and $0''.53$ perpendicular to the plane of the Moon's orbit. The mean correction, it may be noticed, is slowly decreasing from a value of about 7" in 1926.

Galactic Rotation.—Planetary nebulae, like globular clusters are recognized to be remote members of the stellar system. The number of planetary nebulae known at present is about 150; and they are situated at distances varying from 500 to 12,000 *parsecs*. From a study of the distribution and motions of these objects, Prof. Louis Berman has obtained (*L.O.B.*, 486) a new determination of the constants defining the rotation of the galaxy. The direction of the centre of rotation is given by $l_0 = 333^\circ.0$ and the distance of the Sun from the centre is estimated to be 9360 *parsecs*. The period of its orbital revolution about the galactic centre is 210 million years. The results appear to be in good agreement with those derived from the investigations of Oort as well as Plaskett and Pearce. (The unit of distance—one *parsec*—is equal to 3.26 light years).