

or smaller pores, and, when illuminated, present the appearance of red columns of vapor, and clouds of various forms in the third envelope of the Sun.

MERCURY.

When it is remembered how much the Egyptians* occupied themselves with the planet Mercury (Set-Horus), and the Indians with their Buddha,† since the earliest times; how, under the clear heaven of Western Arabia, the star-worship of the race of the Asedites‡ was exclusively directed to Mercury; and, moreover, that Ptolemy was able, in the 19th book of the *Almagest*, to make use of fourteen observations of this planet, which reach back to 261 years before our era, and partly belong to the Chaldeans,§ it is certainly astonishing that Copernicus, who had reached his seventieth year, should have lamented, when on his death-bed, that with all his endeavors, he had never seen Mercury. Still the Greeks|| justly characterized this planet by the name of (*στίλβων*) the sparkling, on account of its occasionally very intense light. It presents phases (variable form of the illuminated part of the disk) the same as Venus, and, like the latter, appears to us as a morning and evening star.

Mercury is, in his mean distance, little more than 32 millions of geographical miles from the Sun, exactly 0.3870938 parts of the mean distance of the Earth from the Sun. On account of the great eccentricity of its orbit (0.2056163), the distance of Mercury from the Sun in perihelion is 25 millions, in aphelion 40 millions of miles. He completes his revolution round the Sun in 87 mean terrestrial days and 23h. 15m. 46s. Schröter and Harding have estimated the rotation at 24h. 5m. from the uncertain observation of the form of the southern cusp of the crescent, and from the discovery of a dark streak, which was darkest toward the east.

According to Bessel's determination on the occasion of the transit of Mercury on May 5, 1832, the true diameter amounts to 2684 geographical miles, ¶ *i. e.*, 0.391 parts of the Earth's diameter.

* Lepsius, *Chronologie der Ägypter*, th. i., p. 92-96.

† *Cosmos*, vol. iv., p. 93, note †, p. 92. ‡ *Ibid.*, vol. ii., p. 221.

§ Lalande, in the *Mém. de l'Acad. des Sciences* for 1766, p. 498; Delambre, *Histoire de l'Astron. Ancienne*, tom. ii., p. 320.

|| *Cosmos*, vol. iv., p. 93.

¶ On the occasion of the transit of Mercury on the 4th of May, 1832, Mädler and William Beer (*Beiträge zur Phys. Kenntniss der himmlischen Körper*, 1841, p. 145) found the diameter of Mercury 2332 miles;