

The equatorial circumference is thus a little less than 25,000 miles, and the difference between the polar and equatorial diameters (nearly 26½ miles) amounts to about ⅓ᵗʰ of the equatorial diameter.¹⁰ More recently, however, it has been shown that the oblate spheroid indicated by these measurements is not a symmetrical body, the equatorial circumference being an ellipse instead of a circle. The greater axis of the equator lies in long. 8° 15' W.—a meridian passing through Ireland, Portugal, and the northwest corner of Africa, and cutting off the northeast corner of Asia in the opposite hemisphere.¹¹

The polar flattening, established by measurement and calculation as that which would necessarily have been assumed by an originally plastic globe in obedience to the movement of rotation, has been cited as evidence that the earth was once in a plastic condition. Taken in connection with the analogies supplied by the sun and other heavenly bodies, this inference appeared to be well grounded.¹² More recently, however, it has been contended that even in a truly solid body a polar flattening might be developed under the influence of rotation.¹³

Though the general spheroidal form of our planet, and

¹⁰ Herschel, "Astronomy," p. 185.

¹¹ A. R. Clarke, *Phil. Mag.* August, 1878; *Encyclopædia Britannica*, 9th edit. x. 172.

¹² It was opposed by Mohr ("Geschichte der Erde," p. 472), who, adopting a suggestion long ago made by Playfair, endeavored to show that the polar flattening can be accounted for by greater denudation of the polar tracts, exposed as these have been by the heaping up of the oceanic waters toward the equator in consequence of rotation. He dwelt chiefly on the effects of glaciers in lowering the land, but as Pfaff has pointed out, the work of erosion is chiefly performed by other atmospheric forces that operate rather toward the equator than the poles ("Allgemeine Geologie als exacte Wissenschaft," p. 6). Compare Naumann, *Neues Jahrb.* 1871, p. 250. Nevertheless, Mohr undoubtedly recalled attention to a conceivable cause by which, in spite of polar elevation or equatorial subsidence, the external form of the planet might be preserved.

¹³ See in particular the papers by Mr. C. Chree. *Phil. Mag.* 1891, pp. 233 and 342.