is that the outline of the earth's shadow scen upon the moon during a lunar eclipsc is such as only a sphere could cast."⁹

Now, some unwarranted assumptions are involved in this proof; and some peculiar features, associated with the phenomenon of a lunar eclipse, and unfavourable to the shadow proof, are not emphasised as they ought to be.

- FIRST.--The usual explanation given for an eelipse of the Moon, viz., that the eelipse is produced by the shadow of the Earth on the Moon, is itself a rice assumption, and has never been proved.
- SECOND.—It is assumed that the Moon is only a reflector of the Sun's rays; an assumption out of harmony with certain observed lunar phenomena, and, as yet, incapable of proof.
- THIRD.—It is not made clear that many other objects besides a sphere, such as a dise, a cylinder, or an oval shaped body, might cast a circular shadow.
- FOURTH.—An eelipse of the Moon is not, after all, a phenomenon as clear cut in its detail, and capable of ready association with the Earth, as many suppose, and it becomes necessary to appeal largely to the imagination. Some of the general characteristics of this phenomenon may be well understood from the statement of the noted Copernican astronomer and writer, the late Mr. Richard A. Proctor. He says—

"Another proof of the globular figure of the earth has been derived from the shape of the earth's shadow as seen during a lunar eclipse. This proof is not perhaps very striking, because the curvature of the earth's shadow as seen on the moon is by no means so well marked as many suppose. The shadow has not a well-defined edge, the eircle it belongs to is much larger than the moon, and finally the moon's surface is marked with so many variations of brilliancy as to confuse the border of the umbra."

But, if it be granted that no peculiarities, such as are mentioned by Mr. Proctor, affect the proof, even then, however,

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⁸ Manual of Astronomy, Boston, 1904, p. 106. ⁹ Knowledge, Vol. VI, p. 275.