*Orbitolites complanata*, Lamarck (Pl. XVI. figs. 1–6;—irregular and monstrous specimens, Pl. XVII. figs. 1–6).

"Retepora *Muscipula* minima," Soldani, 1795, Testaceographia, vol. i., part 3, p. 242, pl. clxvii. figs. *ss*, *tt*; pl. clxviii. fig. *xx*.
*Orbitolites complanata*, Lamarck, 1801, Syst. Anim. s. Vert., p, 376.
*Discolites concentricus*, Montfort, 1808, Conch. Systém., vol. i. p. 187, genre 47°.
*Orbulites complanata*, Lamarck, 1816, Nat. Hist. Anim. s. Vert., vol. ii. p. 196, No. 2.
*Marginopora vertebralis*, Quoy and Gaimard, 1833, Voyage de l'Astrolabe; *fide* Blainville, 1834, Man. d'Actinologie, p. 412, pl. lxix. figs. 6, 6 *a–c*.
*Orbitolites complanata*, d'Orbigny, 1850, Prodr. de Paléont., vol. ii. p. 405, No. 1295.
" " Carpenter, 1850, Quart. Journ. Geol. Soc., vol. vi. p. 30, pl. vii. figs. 24–30;—1856, Phil. Trans., p. 224, pls. iv.–ix., &c.
*Orbiculina* (*Orbitolites*), sp. ined., Williamson, 1851, Trans. Micr. Soc. Lond., ser. 1, vol. iii. p. 117, pl. xviii. figs. 11–14.
*Orbitolites complanata*, Parker and Jones, 1860, Ann. and Mag. Nat. Hist., ser. 3, vol. v. p. 291, No. 2.
*Orbiculina compressa*, Jones, Parker, and Brady, 1866, Monogr. Foram. Crag, p. 21, pl. iii fig. 43.
*Orbitolites orbiculus*, Id. Ibid. p. 23, pl. iii. figs. 45–47.
*Orbitulites præcursor* (?), Gümbel, 1872, Neues Jahrb. für Min., &c., p. 256, pl. vii. figs. 1–10.
*Orbitolites complanata*, Carpenter, 1883, Report on the Genus Orbitolites, Zool. Chall. Exp., part xxi. p. 29, pl. v. figs. 14–18; pls. vi., vii., viii.

This species exemplifies the highest development of the Orbitoline type, not only in point of size, but still more in complexity of structure.

The test is a circular disk, the surfaces of which are as a rule distinctly concave; but very large specimens are sometimes nearly flat, the depression being confined to a small area in the centre, and not unfrequently, in such cases, the disk becomes somewhat thinner again near the margin. The peripheral edge is thick and slightly convex or rounded. Ordinary well-grown specimens vary in diameter from $\frac{1}{25}$th inch to nearly 1 inch (1 mm. to 25 mm.), and in thickness from $\frac{1}{80}$th inch to $\frac{1}{10}$th inch (0·3 mm. to 2·5 mm.).

The central portion or "nucleus," consisting of the primordial and the circumambient chamber, is relatively larger than in the other species of the same genus; and the first annular band of chamberlets is formed directly upon it without the interposition of partial or incomplete circlets; so that except the "nucleus" the entire shell is made up of concentric zones of chamberlets. The number of zones varies greatly according to the size of the specimen, and is stated by Dr. Carpenter to range from 3 to 160 or more. The aperture of the test consists of a large number of marginal pores, which show a disposition to an arrangement in transverse lines of greater or less regularity.

Each of the concentric zones of which the shell is composed consists of three parts, namely, two superficial layers, separated by a thicker mass, which for the purposes of description has been termed the "intermediate stratum." The superficial layer of each zone is composed of a single tier of chamberlets, somewhat elongated in the radial direc-