

Sphæroidina bulloides, d'Orbigny (Pl. LXXXIV. figs. 1-7).

- Sphæroidina bulloides*, d'Orbigny, 1826, Ann. Sci. Nat., vol. vii. p. 267, No. 1,—Modèle, No. 65.
- „ *austriaca*, Id. 1846, For. Foss. Vien., p. 284, pl. xx. figs. 19-21.
- Sexloculina haueri*, Czjzek, 1847, Haidinger's Naturw. Abhandl., vol. ii. p. 149, pl. xiii. figs. 35-38.
- Sphæroidina variabilis*, Reuss, 1851, Zeitschr. d. deutsch. geol. Gesellsch., vol. iii. p. 88, pl. vii. figs. 61-64.
- Grammobotrys parisiensis*, Ehrenberg, 1854, Mikrogeologie, pl. xxvii. figs. 30, 31.
- Sphæroidina parisiensis*, Id. Ibid. pl. xxvii. fig. 34.
- „ *gemmula*, Id. Ibid. pl. xxx. fig. 22.
- „ *bulloides*, Parker, Jones, and Brady, 1865, Ann. and Mag. Nat. Hist., ser. 3, vol. xvi. p. 29, pl. ii. fig. 58.
- Bolbodium sphærulea*, Ehrenberg, 1873, Abhandl. d. k. Akad. Wiss. Berlin [1872], p. 388, pl. iv. fig. 1.

In its typical presentment the test of *Sphæroidina bulloides* is nearly spherical, and is composed of a few extremely convex segments combined so as to form somewhat less than two convolutions of an involute spire. Each segment is considerably larger than its predecessor, and usually only those of the final convolution, three or four in number, are seen on the exterior; but sometimes, owing to the asymmetry of the chambers or their more or less oblique setting, the earlier segments are visible on one side of the shell. The shell is quite smooth externally and is stoutly built, having an average thickness of about $\frac{1}{500}$ th inch. It often presents a laminated structure, as shown in the section (fig. 5), owing to the extension of the walls of the later chambers over those previously formed. The pseudopodial perforations are comparatively minute; they are seldom visible externally and never conspicuous, but in section they appear as tubular canals, the larger of which scarcely exceed $\frac{1}{10,000}$ th inch (0.0025 mm.) diameter.

With reference to the nomenclature of the species,—the term *Sphæroidina bulloides* was originally applied by d'Orbigny, both to recent specimens obtained from the shores of the Adriatic and to similar shells from the later Tertiaries of Italy, and the distinctive characters were exemplified in one of the Models of his well-known series. Nevertheless, in the "Vienna Basin" monograph certain Miocene fossils, the figures and description of which correspond in every particular with the Model in question, are introduced under the name *Sphæroidina austriaca*, and this appellation has been commonly adopted, at any rate for fossil specimens, by subsequent writers. It is impossible to recognise the two forms as zoologically distinct; indeed the entire list of "species" enumerated in the foregoing synonymy does not collectively embrace a much wider range of morphological characters than is represented by the group of figures on Pl. LXXXIV.