

The non-carinate variety of *Ophthalmidium* is altogether rarer than the carinate form previously described, and in the few localities in which it has been found it occurs in company with the latter species. The figured specimen is from the Challenger Station No. 24, off Culebra Island, West Indies, 390 fathoms.

### *Hauerina*, d'Orbigny.

*Hauerina*, d'Orbigny [1846], Jones and Parker, Reuss, Karrer, Brady, Schwager, Steinmann.

The genus *Hauerina*, reduced to its original d'Orbignian dimensions by the transfer to *Planispirina* of the species with Nummuline extensions of the chamber-walls, and to *Ophthalmidium* of the complanate forms with more distinctly Milioline characters, constitutes a compact and easily recognised group. It may be said to comprise the plano-spiral porcellanous Foraminifera which are Milioline only in the very early stages of growth, and have more than two segments in each of the later convolutions; with smooth unornamented exterior, and porous aperture.

The dimorphous habit, smooth exterior, and comparatively small number of segments serve to distinguish the genus from *Peneroplis*; and the porous aperture, together with the absence of Nummuline lamination of the shell-wall, separate it from *Planispirina*. From *Spiroloculina* it is readily known by the number and arrangement of the chambers and by the aperture, notwithstanding certain intermediate forms, such as *Spiroloculina fragilissima* (Pl. IX. figs. 12-14), which are an occasional source of difficulty. It is perhaps open to question whether the Cretaceous species described by Reuss, *Hauerina antiqua*,<sup>1</sup> with its large dome-shaped aperture, would not under the present arrangement be better placed in the genus *Planispirina*, but this can only be determined by the re-examination of the specimens. The *Peneroplis laubei* of Karrer,<sup>2</sup> appears to be a true *Hauerina* with somewhat embracing chambers.

The geographical distribution of *Hauerina* is limited to the comparatively shallow waters of tropical and subtropical seas. Geologically, its earliest representative is the Cretaceous form already referred to, and less ambiguous species are found in the Miocene beds of the Vienna Basin (d'Orbigny, Karrer) and of the Banat (Karrer).

*Hauerina compressa*, d'Orbigny (Pl. XI. figs. 12, 13).

"Testæ hammoniformes, &c." Soldani, 1789, Testaceographia, vol. i., pt. 1, p. 76, pl. lxxix. fig. 1.

*Hauerina compressa*, d'Orbigny, 1846, For. Foss. Vien., p. 119, pl. v. figs. 25-27.

D'Orbigny's description of *Hauerina compressa* needs but little modification to be equally applicable to recent and fossil specimens. In general terms the living examples of the species are somewhat larger and less regular in contour than those found in the

<sup>1</sup> *Sitzungsb. d. k. Ak. Wiss. Wien*, 1862, vol. xlvi. p. 35, pl. ii. fig. 1, a, b.

<sup>2</sup> *Ibid.*, 1868, vol. lviii. p. 154, pl. iii. fig. 9.