

pl. x. figs. 5, 6 and 8). They seem to be mere varieties of *Spiroloculina limbata*, somewhat narrower and flatter than the typical form, not so strongly nor so regularly limbate over the septal lines, and with the ends of the chambers projecting a little beyond the rest of the shell. Prof. Parker gives a drawing of what appears to be the same form in his paper on the Miliolitidæ of the Indian Seas (Trans. Micr. Soc. Lond., 1858, vol. vi., pl. v. fig. 3), but simply describes it as a "*Spiroloculina* with square cells and produced edges," without appending any trivial name.

Specimens similar to these have been met with in the Challenger material from two or three points in the eastern seas; namely, off Amboyna, 15 to 50 fathoms; Philippine Islands, 95 fathoms; and Humboldt Bay, Papua, 37 fathoms.

*Spiroloculina tenuis*, Czjzek, sp. (Pl. X. figs. 7-11).

*Quinqueloculina tenuis*, Czjzek, 1847, Haidinger's Naturw. Abhandl., vol. ii. p. 149, pl. xiii. figs. 31-34.

„ „ Reuss, 1849, Denkschr. d. k. Akad. Wiss. Wien, vol. i. p. 385, pl. I. fig. 8, *a, b, c*.

*Spiroloculina rostrata*, Id. Ibid., p. 382, pl. xlix. fig. 7.

„ *tenuissima*, Reuss, 1867, Sitzungsab. d. k. Ak. Wiss. Wien, vol. lv. p. 71, pl. i. fig. 11.

„ *berchtoldsdorfensis*, Karrer, 1877, Geol. K. F.-J. Wasserleitung, p. 375, pl. xvi. *a*. fig. 10.

*Quinqueloculina tenuis*, Siddall, 1878, Proc. Chester Soc. Nat. Sci., part ii., p. 46.

*Spiroloculina tenuis* presents a certain degree of variability of contour, caused by occasional irregularity in the disposition of the central chambers. In small delicate specimens the test is commonly Spiroloculine from beginning to end, but those of larger size have often a thickened centre, owing to the earlier segments not being arranged on one plane, but more or less on the Quinqueloculine plan, as shown in the section, fig. 11. It is probably due to this fact that the species has been sometimes assigned to the genus *Quinqueloculina*; but a slight irregularity in the young condition is of little morphological importance when compared with the unmistakably Spiroloculine characters of the mature shell.

*Spiroloculina tenuis* inhabits all the great ocean basins. It is especially abundant in the South Pacific, north-west of Juan Fernandez (Stations 296-302), and the specimens are relatively large. It appears less common in the North Pacific than elsewhere. It occurs at every depth from the shallow water of our own shores down to 2750 fathoms, the finest specimens being from moderately deep bottoms.

The fossil specimens figured by Czjzek, Reuss, and Karrer, are from beds of Tertiary age at various localities within the Austrian Empire.

*Spiroloculina asperula*, Karrer (Pl. VIII. figs. 13, 14, and 11?).

*Spiroloculina asperula*, Karrer, 1868, Sitzungsab. d. k. Ak. Wiss. Wien, vol. lvii. p. 136, pl. i. fig. 10.

I have met with two varieties of this species having morphological characters practi-