

The *Rotalia tuberosa* of Karrer, which appears to be identical with the present species, was obtained from the Miocene formations of Lower Austria.

Rotalia papillosa, n. sp. (Pl. CVI. fig. 9, *a.b.c.*).

Test subglobular, slightly compressed; both faces highly convex, periphery obtuse and rounded; composed of three or four convolutions, the last of which has twelve to fourteen segments. Sutures limbate; marked externally either by interrupted raised lines, or more frequently by single or double rows of exogenous beads. Umbilical hollow filled with clear shell-substance, the exterior of which is granulated or irregularly fissured. Aperture an arched cleft at the inner margin of the inferior face of the final segment, near the periphery. Diameter, $\frac{1}{20}$ th inch (1.27 mm.).

A thick, rounded modification, closely allied to *Rotalia schroeteriana*, but of inferior development, both in respect of size and minute structure.

It was obtained at seven Challenger Stations in the South Pacific and at one in the North Pacific, as follows:—Port Jackson, Australia, 2 to 10 fathoms; Torres Strait, 3 to 11 fathoms; two points amongst the islands south of Papua, 25 to 29 fathoms; Humboldt Bay, Papua, 17 fathoms; Nares Harbour, Admiralty Islands, 37 fathoms; off Amboyna, 15 to 20 fathoms; and Hong Kong Harbour, 7 fathoms.

Rotalia papillosa, var. *compressiuscula*, nov. (Pl. CVII. fig. 1, *a.b.c.*; young, Pl. CVIII. fig. 1, *a.b.e.*).

General characters similar to those of *Rotalia papillosa*, but the test much more compressed and the periphery sharply angular. Diameter, $\frac{1}{5}$ th inch (1 mm.).

This variety is rather smaller than the more typical form, and the contour of the test is lenticular instead of nearly globular; the segmentation also and the disposition of the surface-ornament are generally more distinct and regular.

Rotalia papillosa, var. *compressiuscula* has been observed in dredged sands from eight Pacific Stations, namely:—Port Jackson, Sydney, 6 fathoms; three points on the southern coast of Papua, 25 to 29 fathoms; Humboldt Bay, Papua, 17 fathoms; off Amboyna, 15 to 20 fathoms; off the Philippines, 95 fathoms; and the Inland Sea, Japan, 14 fathoms. At five of these localities it occurs in company with the typical *Rotalia papillosa*.

Rotalia venusta, n. sp. (Pl. CVIII. fig. 2, *a.b.c.*).

Test compressed, sublenticular; superior face only slightly convex, often nearly flat, inferior convex; margin obtuse or rounded, more or less constricted at the sutures; composed of two convolutions or rather more, of which the later has about eight segments;