

exceedingly delicate threads, often in large number, from the one or several mouths or numerous pores of the shell. They divide and subdivide into finer and finer threads, which inosculate freely where they come into contact with one another, so as to produce an intricate net. From this condition, Dr. Carpenter has applied to the order the name of Reticularia. The pseudopods exhibit continual changes in their arrangement, and an incessant circulation in their course. In the larger threads, two streams are observed at the same time, passing in opposite directions; in the finest threads, a single stream moves outward or inward. The currents carry along granules of the protoplasm, and also convey particles of food which may be caught in the way of the pseudopods.

Sea-sands contain as an important constituent the dead shells of recent Foraminifera, though in very variable proportions. They are generally most abundant in the sands of warmer latitudes, and especially on shores profusely furnished with sea-weeds.

Plancus,* who, according to D'Orbigny,† was the first to describe and figure the shells of Foraminifera, counted 6000 individuals in an ounce of sand from the Adriatic. D'Orbigny estimated that there were 160,000 in a gramme of selected sand from the Antilles. Schultze‡ gives 1,500,000 as the number he found in fifteen grammes of sand from Gaeta on the coast of Sicily.

Even on the comparatively barren shores of New Jersey, consisting of quartz sand, foraminiferous shells occur in notable quantity. In a portion scraped from the surface between tides, at Atlantic City, I estimated that there were 18,700 shells to the ounce avoirdupois, all of a single species of *Nonionina*. In another sample, from Cape May, I obtained 38,400 shells to the ounce, likewise of the one species.

In sand collected by scraping up the long white lines on the bathing beach at Newport, Rhode Island, occupying an indenture of the rocky coast, covered with sea-weeds, foraminiferous shells were found to be much more numerous, but, excepting in the case of some examples of *Miliola*, of smaller size. In an ounce of the sand, I estimated that there were about 280,000 shells, of several genera and species.

It would appear as if the deep-sea mud almost universally was mainly

**Ariminensis de conchis minus notis.* Venice 1739.

†*Foraminifères: La Sagra, L'Isle de Cuba.* Paris, 1859. Introduction, vii.

‡*Organismus d. Polythalamien*, 1854, p. 35.