

on the outer face of the final segment; it is a simple rounded orifice, with or without a Milioline tongue.

The genus *Articulina* makes its appearance with the beginning of the Tertiary epoch, and is found sparingly in shallow-water deposits of middle and later Tertiary age.

Articulina sulcata, Reuss (Pl. XII. figs. 12, 13).

Articulina sulcata, Reuss, 1849, Denkschr. d. k. Akad. Wiss. Wien, vol. i. p. 383, pl. xlix. figs. 13-17.

Prof. Reuss (*loc. cit.*) figures under the name *Articulina sulcata* a small striate Foraminifer with the general contour of *Miliolina*, that is to say, without any supplementary linear segments. In the absence of dimorphous structure, the oval aperture, the bordered septal ends of the segments and their shape are held to be sufficiently characteristic to justify the position assigned to it. The question, however, is not so much whether the figured shells belong to the genus *Articulina* as whether they are fully grown, or only one of the previously known species in its primary stage.

Recent specimens, similar in all important points to the little fossils referred to, have been obtained from some of the Challenger dredgings, and, so far as they go, they tend to confirm the view that the adult condition is reached without any change in the mode of growth. They are often of larger dimensions than the Milioline portion of *Articulina conico-articulata*, and the distribution differs considerably from that of *Articulina sagra*. In the absence of any direct evidence that they represent the young or arrested condition of either of these species, I have, with some hesitation, adopted Reuss's name for them.

Articulina sulcata is found at four Challenger Stations:—off the Bermudas, 435 fathoms; off Culebra Island, 390 fathoms; on the Honolulu coral-reefs, 40 fathoms; and off Raine Island, 155 fathoms. The somewhat similar shell with Spiroloculine contour (Pl. IX. fig. 1) was dredged off Kandavu, 255 fathoms.

The localities given by Reuss for the fossil examples are the Tertiary clays of Felső-Lapugy in Transylvania, and of Wieliczka in Galicia.

Articulina lineata, n. sp. (Pl. XII. figs. 19-21).

Test elongate, compressed, broadly spathulate; consisting of a flat Milioline shell, surmounted by one or two rectilinear chambers. Margin thin, sharp, or slightly rounded, without any material constriction at the sutures. Surface ornamented with delicate parallel longitudinal striæ. Aperture oval, situated in the middle of the bordered slit-like depression which forms the end of the latest segment. Length, $\frac{1}{40}$ th inch (0.6 mm.).