of the calicle, the base is continued horizontally outwards into twelve stout spines, irregularly beset with small pointed tubercles. The spines correspond in position with the primary and secondary costæ. There are six systems of septa, and four cycles, with a partial fifth cycle in large specimens. The septa of the four cycles are complete. All the septa are exsert. The primary, secondary, and tertiary septa bear pali, those of the tertiary septa being the most developed. The columella is large and composed of a tubercular mass of contorted papillæ.

A young and imperfect specimen of this coral was figured and described by Pourtalès as *Trochocyathus coronatus*. One of the young specimens obtained by the Challenger shows the identity of the forms. The young differs very much from the adult, the spines being scarcely at all developed. The adult form is so peculiar in its shape as to require the formation of a new genus for its reception. In its tendency to develop a fifth cycle of septa, the species conforms with the *Trochocyathi armés* of MM. Milne-Edwards and Haime, a large number of these having five cycles.

Station 24, off St Thomas, Danish West Indies. 390 fathoms. Five specimens obtained at one haul.

Count Pourtalès' specimen was brought up by the lead from 460 fathoms, in lat. 30° 41′ N., long. 77° 3′ W., off the coast of Florida.

Since the coral is peculiar and interesting, I give here a fully detailed description of the specimens obtained, all of which were dead when brought up.

Detailed Description of the Corallum of *Odontocyathus coronatus*.

The corallum is white. It is free and circular in horizontal section with a broad flat base, with the plane of which the walls of the calicle sloping outwards make an angle of about 60°. At its junction with the wall of the calicle the base is continued horizontally outwards into twelve stout pointed tubercles or spines irregularly beset with small pointed projections, these tubercles corresponding in position with the primary and secondary costæ. The base has thus, when viewed from beneath, an irregularly circular outline with deep indentions at its margin. In the centre of the base is a conical projection, at the summit of which is a very small somewhat oval clean-cut surface, the trace of adherence of the corallum. From the base of the conical projection proceed twelve radiating ridges, one to each of the basal tubercles, becoming more marked as they proceed outwards. These ridges are beset with small pointed tubercles which, with the ridges themselves, increase in size from the centre outwards. These small tubercles are arranged to some extent at regular intervals along the ridges, and there are traces of a series of concentric wavy lines corresponding in position to the several sets of tubercles. These are, evidently, lines of growth showing the outline of the base of the corallum at successive stages, the tubercles corresponding to each of these lines having been originally