

which forms a wide, continuous structure separating the ridges. This latter form has also a finer and more delicate structure than *Pachyseris speciosa*. It may be distinguished as *Pachyseris haimeii*, n. sp.

*Locality*.—Tahiti.

Genus 4. *Cylloseris*, n. gen.

Corallum compound, consisting of more or less irregular, semi-incrusting, thin, explanate expansions, the under surface of which is faintly granulated and marked by very delicate costal striations. The upper surface very uneven, owing to the development of subconical, elevated, compact, perpendicular projections, which form neither longitudinal crests nor continuous transverse ridges, but which are often arranged in a subconcentric manner; these projections apparently formed by short, irregular, transverse flexures of the corallum at the margin, with consequent thickening and elongation by growth. The calicles are scattered and numerous, situated singly, both in the upper angle of the elevations, which consequently form large platforms below the calicles, and irregularly on the sides and extremities of the larger projections. The fossa extremely small. The parent calicle indistinguishable. The septo-costæ take the form of extremely delicate, very granulated, entire striations over the whole surface, continuous from centre to centre, giving a very even appearance to the projections. Columella tuberculate or substyliform.

The subconical or subcylindrical, elevated projections of the surface, with the almost inconspicuous cells and septa, give a peculiar appearance to this genus, and easily serve to separate it from all other Fungida. It has many points of alliance with the fossil genus *Hydnophorabacia*. This is clearly the undescribed genus referred to by Professor P. Martin Duncan in his Revision of the Families and Genera of Madreporaria, p. 164.

*Cylloseris incrustans*, n. sp. (Pl. VI. figs. 4-4b).

Corallum incrusting, often free for a large extent, much bent and contorted, and extremely thin at the margin. Costæ closely crowded, very faintly marked, almost obsolete; the under surface uneven, and closely and irregularly undulate. The projections of the upper surface are from 2 to 7 mm. high, irregular, subconical, often with an elongated base, and bent, and often continuous with one another; acute or rounded, rather close, sometimes crowded. Calicles, very small and shallow, the fossa being from about 0.5 mm. to 0.75 mm. wide; they are situated singly both at the base of each of the projections, in the upper angle, and on the larger and thicker projections. Septa of three or four cycles, often much elongated, very thin, appearing as fine striations, and scarcely distinguishable with the naked eye; continuous over the projections from centre to centre, but on +