

supplementary bases of attachment. The depressions and prominences of the under surface small, irregular and numerous. Costal striations distinct, fine and subequal. Calicles very irregularly and unevenly placed, often crowded, frequently grouped into rather large, nodular masses over the surface, especially on the older parts, owing to the development of calicles on the projections. The fossa small and deep, from about 0.75 to 1.5 mm. in diameter. Septa apparently of three cycles, very close, small and unequal and unequally raised, granulated and perforated except at the extreme basal part. Septo-costæ almost straight at the marginal part of the corallum, and divided into more or less irregular, rather large, rounded teeth; but throughout the rest of the corallum, they are irregularly discontinuous, bent, sinuous and contorted, rather thin or irregularly swollen, thick and tuberculate, unequally toothed and prominent, more frequently so below the calicles, so that the surface has a rough and very uneven and irregular aspect. Columella small, deep down in the fossa, and not conspicuous. The synapticulæ are extremely well developed and abundant, subparallel, and separated by spaces about equal to their own diameter, clearly seen both in transverse and longitudinal section, and fused only throughout a thin basal lamina.

This species shows well the typical structure of the genus, which in its youngest stages is closely allied to the genera *Agaricia*, *Leptoseris* and *Trochoseris*, but which with growth becomes more clearly related in its adult forms to the genus *Psammocora*.

It is represented in the collection by a large portion (evidently broken off a large specimen), and by two small pieces.

*Locality*.—Tahiti.

2. *Domoseris solida*, n. sp. (Pl. V. figs. 5-5a).

Corallum broad, explanate, of a very dense and solid texture, thin, from about 8 to 10 mm. thick at the central portion, much thinner towards the margin, irregularly shallow-vasiform, with supplementary basal attachments. Under surface very finely striate, with very small and irregular depressions and prominences. Calicles very unevenly and irregularly placed, often crowded, and frequently grouped into small, nodular masses, due to the development of calicles on the projections of the surface. The projections are from 3 to 7 mm. in height and width, and are very uneven, more or less perpendicular to the surface and generally distinctly isolated. The fossa is rather deep and from about 0.75 to 1.5 mm. wide. The septa of two or three cycles, small, unequal, close, very granulated and solid. The septo-costæ in many parts are nearly straight especially towards the margin, alternately rather large and small, with an uneven border seldom divided into distinct teeth; towards the central parts, and more especially on the projections, they are more or less discontinuous, irregularly thickened, bent, sinuous, contorted and unevenly prominent, so as to give a rather rough aspect to the projections.