

branchlets and proliferous calicles closely appressed into the plane of the frond, giving it a very rough appearance; at various parts they coalesce with the branches to form small, solid areas, in which all traces of the original forms are lost, and on which there are short, crowded, almost immersed calicles. Above, the branchlets are very short, from about 6 to 10 mm. long, rather thick (about 5 or 6 mm.) in comparison with their length, placed at right angles to the frond, obtuse and rosette-shaped at their apex, and proliferous; at the edges of the corallum they are somewhat longer and thinner. The terminal calicles are about 1.75 mm. wide, scarcely or not at all prominent, with rather thick edges and a distinct star of six septa. The lateral calicles are very small throughout, more conspicuously so at the base, rather broadly and curvedly labellate, very closely crowded, not appressed, generally erect, and with an inconspicuous star of six septa; at the apex they are gathered into a rosette of almost tubo-labellate cups around the short terminal calicle, often with a few larger proliferous ones. The rosette is much less distinct towards the outer parts of the frond. On the basal parts the calicles become quite immersed and are about 0.5 to 0.75 mm. wide. The cœnenchyma is rather dense, becoming porous and reticulate in the younger parts; the surface is echinulate and substriate, distinctly striate on the cups.

Of this species there occurs in the collection only a large, broken, flattened frond, which may have formed a portion of an irregularly grown, shallow-vasiform specimen.

*Locality*.—Reefs, Fiji.

48. *Madrepora cytherea*, Dana.

*Madrepora cytherea*, Dana, Zoophytes, p. 441, pl. xxxii. fig. 3.

Fine specimens of this species were obtained, one of which is nearly a yard in diameter and possesses a high pedicel. The branches though much flattened and coalescent are very distinct throughout, lessening gradually in size; the calicles are fragile and very long, especially the apical ones, which are often grouped in short and thick clusters. The cœnenchyma is quite light and porous in the younger parts.

*Locality*.—Tahiti.

49. *Madrepora vastula*, n. sp. (Pl. X. figs. 4-4c).

Corallum broadly and very deeply vasiform, somewhat roughly funnel-shaped and narrowly pedicellate; fronds about 4 cm. thick almost evenly to the edges; branches closely divided so as to be nearly subequal throughout, intimately coalescent even to the margin of the vase, evenly reticulated, with small, narrow meshes between them; the under side rough with numerous, appressed, coalescent branchlets, and unequal, proliferous calicles; the upper surface closely crowded with arcuate, tapering, elongated, subproliferous