

10 mm. wide and 4 to 5 mm. thick, which are coalescent so as to form a broad and thin lamina with numerous meshes. The under side, where the flattened, coalescent branches and branchlets are seen to form an irregular trellis-work with meshes of different sizes and shapes, is almost entirely destitute of calicles, except a few immersed ones; some large and long calicles occur, which spring from the compressed edges of the branches and give rise to small branchlets, which become closely appressed to, and ultimately fuse with, the adjacent branches. The upper side is covered throughout with closely placed clusters of very long, proliferous calicles, which are sometimes in groups of five or six, and between which occur a few shorter and immersed ones. The calicles of the clusters are tubiform, about 15 mm. long (often more or less), curved, tapering and irregularly bent, from about 3 to 4 mm. wide at their base and 1.5 mm. at their apex, and many of them carry two or three short and small, lateral calicles. At the outer, free edges of the corallum the branches are not elongated, but short and rather thick, and the calicles are short and thick proportionately and more closely placed, but never crowded. Six septa are present, and sometimes there are rudiments of a second cycle. The cœnenchyma is dense, and the surface very closely and finely echinulate. In many places, and chiefly between the coalescent branches, the surface becomes reticulate or finely fissured, so as to present a worm-eaten aspect.

In its mode of growth this species bears marked resemblance to *Madrepora granulosa*, Milne-Edwards and Haime, but its other characters easily distinguish it. A large specimen and a few fragments were obtained.

*Locality*.—Tahiti.

46. *Madrepora hyacinthus*, Dana.

*Madrepora hyacinthus*, Dana, Zoophytes, p. 444, pl. xxxii. fig. 2.

A single very large, shallow, vasiform specimen, about 40 cm. in diameter, is in the collection, and it agrees in every particular with the excellent description given by Dana. The branches are frequently, though loosely, coalescent; and often towards the centre of the vase the branchlets become very short and proliferous. The vase is very irregular in outline, owing to the unequally grown branches. The apical calicles are very uniform in size, from 2.5 to 3 mm. in diameter.

*Locality*.—Levuka, Fiji.

47. *Madrepora conferta*, n. sp. (Pl. X. figs. 3-3c).

Corallum flattened, about 2 to 3 cm. thick; branches very closely packed and much divided, densely and intricately coalescent, with narrow, elongated meshes, but with the main branches remaining distinguishable. On the under side there are numerous, coalescent