

This species, though agreeing in general habit with *Montipora palmata*, differs markedly in the nature of its surface, which brings it into close relation with *Montipora poritiformis*, *Montipora digitata* and *Montipora tortuosa*. A variety occurs on the Fiji Reefs which is very close to *Montipora digitata*, but differs in its much more compressed branches, and in its cells, which are not sunk towards the extremities of the branches in large depressions, so as to give a pitted appearance to the surface. The presence of large, pit-like depressions, in which the calicles are situated, forms an essential character of each cell of *Montipora digitata*, as described by Dana.

*Localities*.—Banda ; reefs, Fiji.

5. *Montipora rigida*, Verrill.

*Montipora rigida*, Verrill, Proc. Essex Inst., vol. v. part 3, p. 26

A very interesting specimen of this species was obtained. The cœnenchyma is very firm, but at the extremities of the well-developed branches and branchlets it becomes very loose and porous, and almost fragile. The calicles of the basal parts are as described by Verrill, but they are easily abraded, and thus become even with the surface. At the apical parts they are not prominent, but are surrounded by a thin, scarcely raised line.

Brüggemann has referred this species to *Montipora (Madrepora) limitata*, Ellis and Solander, but the identification seems to me doubtful.

*Locality*.—Mactan Island, Philippines.

6. *Montipora irregularis*, n. sp. (Pl. VIII. figs. 4-4a).

Corallum incrusting and spreading at the base, forming thick, irregular, nodular processes above, which develop into much divided branches. Branches thick, closely placed, ascending, often coalescent, and becoming broad and almost palmated ; very unequal in length and thickness, compressed, subterete or nearly round, never angular. Branchlets about 12 mm. thick, sometimes compressed, generally rounded, scarcely elongated, and tapering slightly to an obtuse apex. Calicles quite immersed, rather large, about 1 mm. wide, slightly larger on the prominent parts, very crowded, separated by spaces generally much narrower than their diameter, very deep. Septa of two cycles, unequal, rather prominent, and very thin. Cœnenchyma, extremely porous ; surface furnished neither with papillæ nor tubercles, but having the narrow intercalicinal spaces delicately echinulate.

This species has many points of resemblance both with *Montipora divaricata*, Brüggemann, and with *Montipora digitata* (Dana), but can be readily distinguished from both of these forms.

*Locality*.—Samboangan, Philippines.