

5. *Pavonia prætorata*, Dana.

*Pavonia prætorata*, Dana, Zoophytes, p. 325, pl. xxii. fig. 5.

Some fine specimens and small fragments of this species were obtained. It is much more delicate than *Pavonia cactus*. The septa of the apical calicles are very unequal both in this species and in *Pavonia formosa*, which greatly resembles it; in the more basal calicles the septa are subequal.

· *Locality*.—Tahiti.

Genus 4. *Agaricia*, Lamarck.

*Agaricia* (pars), Lamarck, Syst. Anim. sans Vert., p. 375, 1801.

*Undaria et Mycedium* (pars), Oken, Lehrb. der Naturg., Zool., i., 1815.

*Agaricia et Mycedium* (pars), Milne-Edwards and Haime, Cor., iii. pp. 72, 80.

*Agaricia et Mycedium*, Duncan, Rev. Madrep., pp. 158, 161.

The characters on which the genus *Mycedium* has been maintained to be separate from *Agaricia* seem to me altogether insufficient for generic distinction, and, bearing in mind the great variation which takes place in the concentrically seriate arrangement and circumscription of the calicles in the species which have been placed under these genera, I believe it will be impossible to find any fairly constant character by which to separate them. A careful comparison of a series of specimens of *Agaricia agaricites*, *Agaricia frondosa*, *Agaricia undata*, *Agaricia lamarki*, *Agaricia (Mycedium) fragilis*, *Agaricia (Mycedium) elephantotus*,<sup>1</sup> will show all stages between the concentrically seriate arrangement of the scarcely circumscribed calicles and the more or less scattered arrangement with well circumscribed cups. This variability in the arrangement of the calicles is well shown even by individual specimens of the same species, *Agaricia (Mycedium) fragilis* furnishing a typical case, as pointed out by Pourtalès.<sup>2</sup> So completely transitional is this species between the more extreme forms of the genus, that Dana himself, while he places it in the subgenus *Mycedia*, states,<sup>3</sup> in his description of the species, that it "has much of the habit of *Agaricia undata*, and might with equal propriety be placed among the *Undariæ*" (*Agaricia* proper).

The *Mycedium* of Milne-Edwards and Haime, besides *Agaricia elephantotus*, contained three other species, two of which are forms of the genus *Phyllastræa*, *Phyllastræa tubifex*, and *Phyllastræa okeni*; and the other apparently an old form of a species of *Leptoseris*, *Leptoseris elegans*. The genus *Phyllastræa* is well distinguished, both by its spongy columella and by its distinctly scattered calicles, the well-developed, raised wall of which is very prominent on one side and is not due to flexure of the lamina nor to the fusion of synapticular structures. The genus *Leptoseris* was founded on a young

<sup>1</sup> This specific term, which was used by Pallas (Elench. Zooph., p. 168), and which has been retained in the same form by later writers, would seem to have been a misprint for "elephantopus."

<sup>2</sup> *Illus. Cat. Mus. Comp. Zool.*, Cambridge, U.S.A., No. iv.

<sup>3</sup> Zoophytes, U.S. Expl. Exped., p. 341.