

bearing portion is compact, resistant, and owing to the oral openings of the siphonozooids, it is shagreen-like.

The small club-shaped spicules of the outer layer are not so well-marked as in *Sarcophytum*; they are plentiful only on the stem. The spicules of the cœnenchyma of the polyp-bearing portions of the colony are numerous, being spindles with many and large echinulate warts in zones, averaging 0.05 mm. in breadth. The spicules of the outer layer of the stem are longer spindles, with large distant warts in zones, short double cylinders, or cylinders somewhat longer than broad, and in both these the warts have a tendency to form zones.

*Lobophytum marenzelleri*, n. sp. (Pl. XLII. fig. 1).

The colony consists of a somewhat broadly oval mass, which is attached to several of the prongs of a *Porites*, from which it has been in part torn. It is about 50 mm. in height by about 60 in width.

The sterile column is of an irregular oval shape, at one end somewhat distorted by growing round a projection of the *Porites*. It measures at its base 40 mm. by 25 mm., and what may be regarded as the strictly columnar portion is about 130 mm. high. The outer coating is wrinkled, but not very rough. A narrow, slightly projecting, roughened rim extends round the actual basal attachment. The texture is firm and rigid; the very dense mesoderm of the polyp tubes is crowded with immense spicules, some of which measure 3 mm. long by 0.75 mm. in width.

The capitulum consists of a large number of short lobes, all of which rise quite upright, not at all projecting over the columnar portion. These are mostly again divided into smaller lobes, the whole forming a very convoluted head, which measures 60 mm. by 50 mm. around its most expanded portion. It is of a hard dense consistency, and is as fully packed with very large spicules as the sterile column. The surface, on drying, is rough.

The autozooids are scattered over the whole of the surface of the lobes; they are retractile within pit-like depressions in the cœnenchyma.

The siphonozooids are very minute, and hardly perceptible, even with a lens.

The colour is a light brown.

The spicules of the sterile column measure—the large tuberculated spindles, the tubercles in whorls, and the spindles, often curved, 4-2.4; 4.2-2.1; 2.4-1.7 mm. Those of the capitulum measure—the spiny irregular spindles 0.24-0.06; 0.16-0.04; 0.1-0.04 mm.

*Habitat*.—Api, New Hebrides; depth, 60 to 70 fathoms.