

high as wide, rising in a steep dome surmounted by a sugar-loaf projection, which is the central primary plate, and is surrounded by five other primaries, longer than broad, and hexagonal, outside which are small, angular, radial shields, which are joined; in the interbrachial space, are one pentagonal and one rounded hexagonal plate, the latter joining the upper edge of the mouth shield; all the plates are closely soldered, slightly swollen, and, as well as the arm plates, are microscopically tuberculous. The only genital openings seem to be at the inner end of the mouth shields. One minute peg-like arm spine, which is found only on the first two or three joints beyond disk, and stands half-way up the side arm plate. The second pair of mouth tentacles protrude from very large oval pores covered with four flat rounded scales; the next pores, those of the first arm tentacles, are similar but smaller; the next still smaller, while those of the fourth under arm plate are little round holes covered by a single scale. Farther out on arm the pores lie behind and above the rudimentary under arm plate. Colour in alcohol, white.

The large side arm plates and few disk plates suggest that this is a young animal. Unfortunately the depth is given as 18 and 240 fathoms; but the character of the animal seems to indicate the latter depth.

Station 172.—July 22, 1874; off Nukualofa, Tongatabu; 18 and 240 fathoms; coral, sand.

### *Ophioglypha.*

*Ophioglypha*, Lym. Proc. Bost. Soc. Nat. Hist., vol. vii., 1860.

Disk covered with plates, or scales, which are usually swollen. Radial shields naked and swollen. Teeth. No tooth papillæ. Mouth papillæ long within, but small and short near the outer end of the mouth slit, and partly hidden by the scales of the mouth tentacles. Arm spines smooth and short, rarely exceeding the length of a joint. Tentacle scales numerous; the innermost pair of tentacle pores shaped like slits, surrounded by numerous tentacle scales, and opening diagonally into the mouth slits. In the back of the disk, where the arm joins it, a notch usually edged with papillæ. Two genital slits starting from the sides of the mouth shields.

Seen from within the upper disk is covered by coarse, irregular, overlapping scales, or plates, and very large, swollen radial shields, which are joined to stout club-ended genital plates whose shaft is flattened and rounded. The genital scale is usually wide, especially at its outer end, which bears the comb and often overlaps the head of the genital plate. In *Ophioglypha hexactis*, however, and probably in other species which have no arm comb, it is long and narrow. The jaws and mouth frames are stout and have large sockets for mouth tentacles, and a nerve ring more or less exposed by reason of the small size of the peristomial plates, which are sometimes represented only by a thin lime crust, and are sometimes nearly or quite wanting. On their outer and inner faces the arm bones present the typical structure, except that they are as high as, or