

anterior extremity of the body, and in some individuals from Station 313 they communicate with the radial muscular bands at its middle. The calcareous ring is very narrow and fragile; when treated with a solution of potash it does not separate into distinct pieces, but seems to form a continuous whole. Anteriorly, it sends out ten comparatively long processes, of which the five radial are slightly enlarged at the tops and notched. The reproductive organs consist of two fascicles of long, slender, simple tubes, and its long efferent duct opens in a small papilla situated far behind the tentacles. Besides the two longer respiratory-trees, often one or two shorter ones are present.

The above description refers to the specimens dredged at Station 315. That obtained at Station 316 is totally devoid of any calcareous deposits, these having been probably dissolved by means of some impurity in the alcohol. The individuals, on the contrary, brought home from Stations 313 and 314 are remarkable for having the integument supported by some very scattered, irregular or almost round, perforated plates and more numerous larger and smaller spicules with the ends branched or perforated, resembling those found in the pedicels of the individuals from Station 315. The larger spicules measure as much as 0.22 mm. in length, the smaller about 0.08 mm., and the plates have a diameter of about 0.2 mm. or more. The plates as well as the rods are more or less spinous. In the individuals dredged at Station 313 the deposits are in a state of solution; which consideration renders it rather probable that the individuals from Station 315 have also been in possession of deposits in the body-wall, though they are dissolved. If this be so, I cannot conceive how it is possible that the terminal plates of the pedicels have been left. However, I have more than once observed that the calcareous ring as well as the deposits of the pedicels become dissolved later than the deposits of the body-wall itself.

*Cucumaria crocea*, Lesson, seems not to be identical with Semper's *Cucumaria godeffroyi*, but both forms are doubtless nearly allied to each other.

*Cucumaria mirabilis*, n. sp. (Pl. IX. fig. 5).

Body tapered towards each extremity, curved, with the convex ventral surface longer than the concave dorsum. Tentacles small, ten in number. Pedicels mainly belonging to the ambulacra, two or three rows in each, besides some scattered pedicels in the inter-ambulacra. Excepting these pedicels, some slightly larger elongate conical processes are to be found on the ventral ambulacra. Deposits—crowded tables consisting of an irregularly perforated rounded or angular disk with uneven margin and a short spire built up of only two short rods; the top of the spire terminates in several spines; pedicels and processes with transformed, rod-like tables. Colour in alcohol, light yellowish-grey. Length about 12 mm. (in contracted state).

*Habitat.*—Zebu (Philippine Islands); depth, 100 fathoms; one specimen. Port Jackson (Australia); depth, 6 to 15 fathoms; one specimen.