out the five muscular bands. Exteriorly, the integument is provided with very small papillæ, each of them containing a four-armed calcareous deposit (Pl. XXXII. fig. 16), the form of which has been already described in the character of the genus. The four curved arms of that deposit are directed towards the base of each papilla, and the long central process towards the top. The arms as well as the process are more or less spinose, though it is impossible to decide to what degree, several calcareous bodies having been thoroughly dissolved and the rest considerably deformed, the alcohol, in which this animal as well as some others had been preserved, probably having become acid. The length of the arms of those calcareous bodies is about 0.12 mm. The end of the pedicels contains a number of larger and smaller unbranched spicula and four-armed irregular bodies (Pl. XXXII. fig. 17).

As usual in this family the calcareous ring (Pl. XXXVII. fig. 2) is composed of five radial pieces or spicula, as I prefer to call them, which, being separated from one another in this species, do not form a complete ring round the gullet. Each spiculum consists of a short central part, from which radiate on each side ten to fourteen slender rods, 0.8 mm. long, slightly arcuated, and towards the end widened, flattened, and more or less branched. In the layer of connective tissue round the calcareous ring is a quantity of more or less irregular four-armed bodies, resembling those of the pedicels. Two ventral polian vesicles are to be observed, one on each side, and two other rudimentary prolongations are given off from the circular vessel. The madreporic canal seems to be destitute of calcareous deposits, and it has not been possible to determine whether it pierces the wall of the body or not. The reproductive organ, only 25 or 30 mm. long, is composed of two branches, each enlarged posteriorly and divided into a number of small bundles of cæcal The anterior part of the organ also carries at its sides some small, thin bundles of the same shape. On the nerve ring are to be observed small auditory vesicles containing thirty or forty otoliths of the usual ovate form, with one end abruptly broken off, and with three to four concentric layers; the size of these otoliths varies from 0.21 to 0.04 mm. in length.

Parelpidia cylindrica, n. sp. (Pl. I. figs. 1, 2).

Mouth anterior, terminal. Anus posterior, dorsal. Tentacles bearing on their terminal part small retractile processes. Pedicels nine along each side of the ventral surface, of almost equal size, the posterior pairs being a little longer but thinner. The dorsal surface with two pairs of very small rudimentary processes on its anterior part.

Colour in alcohol, light grey. Length, about 185 or 190 mm. Breadth, about 36 or 70 mm.

Habitat.—Station 298. November 17, 1875. Lat. 34° 7′ S., long. 73° 56′ W. Depth, 2225 fathoms; bottom temperature, 1.3° C.; grey mud. One incomplete specimen.