carries round lobes, the number of which is similar to that of the spokes. The large wheels are most numerous in the walls of the processes and in the dorsal perisoma, and are on the contrary very scattered on the ventral surface and in the pedicels and tentacles. Those large wheels of the individuals dredged at Station 169 are provided with up to fifteen spokes, and with a crown constructed of from five to six arms; instead of the large hole in the centre of the nave, there are frequently found several very small ones, in which case the centre of the nave is joined to the top of the crown by a short minute rod (Pl. XXXII. fig. 6). The small wheel-shaped plates (Pl. XXXII. fig. 5), about 0·052 mm. in diameter, are slightly convex and perforated by about fifteen holes, of which the four central ones are larger than the others which surround them; these plates, which are sometimes provided with five central holes, are found everywhere in the perisoma.

The processes and pedicels contain, besides the above-mentioned forms of deposits, partly larger, scattered round plates (Pl. XXXII. figs. 7) which measure about 0·072 mm. in diameter, and are supplied with from thirty-five to fifty holes, partly a few straight or arcuated simple or branched spinose spicula (Pl. XXXII. fig. 9); in addition, one or more large plates of a more irregular form are distinguishable at the top of the processes (Pl. XXXII. fig. 8). The terminal part of the pedicels is strengthened by several layers of calcareous bodies, the innermost of which is most developed and made up of plates (Pl. XXXII. figs. 11, 12) perforated by numerous round holes, which decrease in size towards the uneven circumference; outside those lie fragile and net-like bodies with wide irregular meshes. The oral-disk is provided with numerous simple, more or less straight and spinose spicula, with the ends sometimes bipartite. The calcareous ring is rudimentary, fragile, and spongy; it has not been possible to distinguish its true form and structure.

The polian vesicle, large and wide, measures about 27 mm. in length. The madreporic canal seems to communicate with the exterior by several pores, though from want of material I do not feel convinced about it; its walls contain a thin thread-like calcareous network (Pl. XXXII. fig. 13). The pedicels are in connection with elongated ambulacral cavities within the perisoma, while the processes communicate with small branched vesicles hanging into the peritoneal cavity. The reproductive organ is composed of two large fascicles about 60 mm. in length, which are situated one on each side of the medio-dorsal mesentery; each fascicle is made up of several bundles of dichotomously branched, elongated, cæcal sacks. The genital aperture is situated about 30 mm. behind the tentacles.

Family III. Psychropotidæ.

Body more or less elongated, either subcylindrical and vermiform, or very flat and depressed, or rather high posteriorly and decreasing gradually forwards; its anterior part