Elpidia willemoësi, but their number of rods amounts only to sixteen, eight towards each opposite side. Two small ventral polian vesicles are found, they are of a sack-shaped form, and measure about 5 mm. in length. The madreporic canal, which seems to be destitute of deposits, pierces the dorsal perisoma and opens externally; that part of it which penetrates the body-wall is extremely fine. It is possible that traces of calcareous deposits may be found where the canal enters the integument, though I have not been able to detect them. In the individuals, examined by me, the alimentary canal forms a small convolution posteriorly, and it does not seem impossible that, when the body is extended to its full length, this may vanish so that the digestive tract may have an almost straight antero-posterior course. The cloaca is inconsiderable. All along both of the lateral nerve-cords are to be observed a number of auditory vesicles, containing a varying number of otoliths. The reproductive organ consists of two minute, thick fascicles of small cæca of the usual shape; the common efferent duct divides, when piercing the body-wall, into two narrow canals, which diverging towards each opposite side within the perisoma, reach the dorsal ambulacra, where they communicate with the exterior, each by a pore.

Peniagone affinis, n. sp. (Pl. VIII. figs. 4, 5).

Body elongated, of almost equal breadth throughout, three or four times as long as broad, depressed posteriorly. Mouth anterior, ventral. Anus posterior, subdorsal. Tentacles of almost equal size; two ventral ones a little smaller than the others; their discoidal, terminal part with small, retractile processes. Pedicels about eleven all along each side of the ventral surface. The dorsal surface with a broad, not very high, flat, transverse lobe anteriorly with four projections on its upper margin, the middle ones being considerably larger; behind that lobe are two very small processes on each ambulacrum. Integument rather thin and rough, with numerous crowded calcareous deposits, composed of four more or less arcuated, slightly spinose, arms, and one to four straight spinose processes, directed outwards; the length of the arms and processes extremely variable.

Colour in alcohol, light grey, glassy. Length, about 100 mm. Breadth, about 27 mm.

Habitat.—Station 147. December 30, 1873. Lat. 46° 16′ S., long. 48° 27′ E. Depth, 1600 fathoms; bottom temperature, 0.8° C.; globigerina ooze. Numerous specimens.

In spite of the great number of specimens which has been dredged from the abovementioned locality, only a few are in a tolerably uninjured state. The size is most variable; the largest individual attains the above indicated dimensions, while the smallest has a length of only 20 to 25 mm. and a breadth of about 7 mm. The body is almost equally broad throughout or slightly widened posteriorly, its anterior and posterior ends being