

degree of curvature is rather variable; sometimes, though rarely, an arcuated arm projects from the middle of the convex side, sometimes its C-shape is changed into the form of an S.

*Peniagone challengerii*, n. sp. (Pl. IX. figs. 6-8).

Body elongated, of almost equal breadth throughout, about five times as long as broad, depressed posteriorly; its posterior flat extremity with an incision in its middle. Mouth anterior, ventral. Anus posterior, dorsal. Tentacles of almost equal size; their discoidal, terminal part with small retractile processes. Pedicels eight or nine along each side of the ventral surface; the anterior half of that surface destitute of pedicels. The dorsal surface having anteriorly an extension of the skin, constituting a long, broad, flattened, obliquely transverse lobe, with two rather considerable projections in its upper margin. Integument rather hard and rough, with numerous, crowded calcareous deposits, composed of a slightly elongated central part, and two more or less curved spinose arms diverging from each of its ends; each arm with a spinose process, directed outwards; the length of the arms and processes extremely variable.

Colour in alcohol, light grey, inclining to violet. Length, about 65 mm. Breadth about 13 mm.

*Habitat*.—Station 158. March 7, 1874. Lat.  $50^{\circ} 1' S.$ , long.  $123^{\circ} 4' E.$  Depth, 1800 fathoms; bottom temperature,  $0.3^{\circ} C.$ ; globigerina ooze. Two specimens.

As the above dimensions indicate, the body, being of equal breadth throughout, seems very narrow in comparison to its length. It attains its greatest height a little behind the tentacles and immediately in front of the large appendage, which divides the dorsal surface into a posterior part, which is slightly convex and gradually approaches the ventral surface posteriorly, and into an anterior, extremely convex part. The large anus is situated on the dorsal surface a little in front of the incision. The dorsal appendage, measuring about 22 mm. in length and about 12 mm. in breadth at the base, crosses obliquely from one side of the dorsal surface to the other, so that while the base at the right side is found at a distance of about 20 mm. from the anterior extremity of the body, this distance at the left side, on the contrary, amounts only to about 11 mm. The upper edge of the lobe is deeply emarginated so as to form two rather slender processes, 8 to 10 mm. long, the right one being a little the larger. The tentacles, of which four are torn off, appear to be of almost equal size; their terminal part is large and discoidal, and of the small retractile processes the two on the outer edge have the appearance of being the largest. The five anterior pairs of pedicels are large in comparison to the posterior ones and separated from each other at certain distances; the seven remaining pedicels, which run out from the flat, truncated posterior end of the body are small and directed backwards, very closely crowded, and disposed four on the right side of the above-mentioned incision, and three on the left. The calcareous deposits (Pl. XXXIII. fig. 16) vary