Peniagone atrox, n. sp. (Pl. X. fig. 5).

Body elongated, about thrice as long as broad. Mouth anterior, ventral. Anus posterior, dorsal. The terminal part of the tentacles large, discoidal, with small, branched, retractile processes. Pedicels about 5 (?) along each side of the ventral surface. The anterior half of the ventral surface destitute of pedicels. The dorsal surface having an extension of the skin anteriorly, constituting a long, but not very broad, flattened, transverse lobe, with the free end rounded and the posterior surface concave. Integument with a great number of crowded calcareous deposits, composed of a slightly elongated central part, and two more or less curved arms, diverging from each of its ends; each arm with a process, directed outwards; the length of the arms and processes extremely variable.

Colour in alcohol, light grey. Length about 100 mm. Breadth about 33 mm.

Habitat.—Station 160. March 13, 1874. Lat. 42° 42′ S., long. 134° 10′ E. Depth, 2600 fathoms; bottom temperature, 0.2° C.; red clay. One incomplete specimen.

The dorsal surface is extremely convex, and its odd interambulacrum is divided by a long and transverse appendage into a posterior, nearly horizontal part, and an anterior part sloping downwards. The ventral surface is more or less evidently flat. The anus is situated upon the dorsal surface. The dorsal appendage attains a length of 35 or 40 mm. and is flattened, its anterior surface being convex, the posterior one, on the contrary, almost concave; its upper part is evenly rounded without any distinguishable processes. The integument seems to form a thin, rather broad fold or brim, along the left dorsal ambulacrum, but I dare not say with certainty whether the animal really possesses it when living, or whether it has originated from an accidental contraction. Only two of the tentacles remain. The calcareous deposits (Pl. XXXIII. fig. 5) of the integument vary greatly as well in form as in size; some of them have their comparatively slender arms very long, measuring about 0.12 mm., spinose, more or less curved, and provided with a short spinose process; others resemble those, though their arms are considerably thicker, and measure only 0.04 mm. in length. Most of the deposits are very small, with their spinose arms extremely short and obtuse, measuring about 0.016 mm., and with their processes of almost the same length and form as the arms, consequently it is almost impossible to distinguish them from each other. posits in the ends of the pedicels as well in the tentacles resemble those of the preceding species.

Peniagone naresi, n. sp. (Pl. IX. figs. 1, 2).

Body more or less clongated. Mouth anterior, subventral. Tentacles of almost equal size; their terminal part with a number of small, retractile processes. The dorsal surface having a large extension of the skin anteriorly, constituting a high, flattened, flexible, transverse lobe with four distinct projections on its upper margin, and with two