

very small ones posteriorly at its base. Integument very thin, transparent, with three sorts of calcareous deposits numerous: large and small, spinose, three-armed bodies; unbranched or irregularly branched, spinose spicula; and small spicula, curved in the form of a C.

Colour in alcohol, light violet. Breadth about 15 to 17 mm.

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

As the posterior part of the body is torn off in this very interesting and characteristic species, it is quite impossible to determine the length of the body, the position of the anus, or the number of the pedicels. The remaining part of the body measures about 35 mm. in length. Anteriorly, where the large dorsal appendage arises, the body reaches its greatest height, and from that point the dorsal surface is almost vertically bent down towards the tentacles. The dorsal surface is extremely convex, the ventral, on the contrary, is almost flat or slightly convex, the breadth of the body seems to be almost equal throughout. The circular ends of the tentacles are large and sole-like. Only six pairs of pedicels remain, the first one arising close to the tentacles; their form is conical, strongly tapering towards the ends, which present a small sole-like enlargement. The dorsal appendage is of considerable size, measuring about 25 to 30 mm. in length, broad superiorly, and almost flat; its inferior part, on the contrary, is a little narrower, and has the posterior surface grooved in the form of a gutter. Of the four projections in the upper free margin of the lobe the two in the middle are largest. The whole lobe of this specimen is constituted, like that of the preceding species provided with such appendages, by four long processes which, communicating with the dorsal ambulacra, are webbed together by an extension of the integument, leaving only their tops free. The integument is very transparent, and the strongly pigmented ambulacra, as well as the nerve-cords and the ambulacral cavities are plainly visible through it. The form and the size of the calcareous deposits (Pl. XXXIII. fig. 15) vary greatly. The large three-armed bodies are more scattered in the integument, and have their arms straight, spinose, and measuring about 0.22 mm. The small three-armed deposits, on the contrary, are very crowded, and their arms, measuring only about 0.06 mm. in length, are provided with conspicuously large spines; the difference between these two deposits is thus striking. The arms are generally straight and, arising from a common centre, form with each other angles of almost equal size; but it is necessary to add that many exceptions are found, some arms being more or less irregularly curved, and consequently the angles being of unequal size. The spicula unbranched, or sometimes which are provided with one or several branches, are very scattered and strongly spinose. The small C-shaped spicula, attaining a length of about 0.068 mm., present an enlargement in the middle, the existence of which seems to be common to all deposits of this kind. Their