anus, minute. Processes of the lateral ambulacra of the ventral surface seven, almost inflexible, and nearly as long as the greatest breadth of the body; behind the anus a rudimentary one. Processes of each of the dorsal ambulacra six to eight, resembling the preceding in size and shape. Integument very thick and hard, with two kinds of calcareous deposits: small branched spicula of various shape; and larger and smaller, irregularly rounded, perforated crowded plates, covering one another completely or with their edges alone.

Colour in alcohol, light grey. Length, about 165 mm. Breadth, about 95 mm.

*Habitat.*—Station 246. July 2, 1875. Lat. 36° 10′ N., long. 178° 0′ E. Depth, 2050 fathoms; bottom temperature, 1·3° C.; grey ooze. Two specimens.

The ventral surface is perfectly flat, while the dorsal one, on the contrary, is extremely convex; the anterior and posterior extremities of the body are almost evenly rounded. The mouth and anus are situated quite on the ventral surface, the latter a little in front of the hindmost pair of pedicels. The bilateral symmetry is particularly strongly marked in this form, especially in regard to the external organs. The pedicels along one side of the ventral surface correspond in number as well as in position and size with those of the other side. The same seems to be the case with the processes, excepting those along the dorsal ambulacra which are slightly variable, though the bilateral symmetry is still traceable even there. The normal number of the dorsal processes seems to be eight along each ambulacrum, though through deformity one or several processes may be wanting; thus one individual possesses six processes along the left ambulacrum and eight along the right, while another specimen has eight along the left ambulacrum and seven along the right. The place where the absent process ought to have been is always plainly indicated by the larger size of the interspace between the processes which lie in front and behind. The pedicels in the middle of the body are larger than the others, about 10 mm. in diameter at the base; their top only is retractile. The processes vary greatly in size, and attain sometimes a length approaching almost the greatest breadth of the body; their form is elongated conical and their base measures about 17 mm. in diameter. The tentacles (Pl. XLIII. fig. 3) of this species as well as those of *Deima fastosum* are very small in comparison with those of the other known forms, and capable of being completely retracted, at the same time the whole crown may be withdrawn, which is not the case in any other forms of the families Deimatidæ and Elpidiidæ. The individuals of the genus *Deima* which I have been able to examine, all have the tentacles drawn into the body, and are thus no longer visible externally. They are quite enclosed in an oral cavity which communicates with the exterior by a small rounded aperture, placed in the centre of a more or less circular disk, round the circumference of which are to be found numerous minute papillæ, the importance of which I have pointed out in the anatomical part of the report. On account of the retracted state of the tentacles it is impossible to determine whether