the middle of each side of the stomodæum is also slightly folded. A little lower down these lateral folds become more important, and the lumen is for some time cross-shaped. The stomodæum reaches nearly to the base of the zooid, and in its lower portion the lateral folds become so important as to bring about a considerable elongation in the transverse axis. In this part, therefore, the lumen of the stomodæum corresponds in shape with that of Amphianthidæ. The ectoderm of the stomodæum is continued on to the free border of the transverse mesenteries as in other forms. In transverse vertical sections, passing in a plane a little to one side of the transverse mesenteries, the stomodæum is seen to be continued laterally nearly to the extremity of the zooid, and ends at a point under the lateral tentacles (see Pl. XV. fig. 1, right half of figure). The change in the position of the long axis of the stomodæum is also well shown in transverse vertical sections. In Pl. XV. fig. 1, the upper portion of the lumen is slit-like, and the greatest diameter is in a plane at right angles to the one figured. Below, the transverse elongation is considerably greater than that in the sagittal axis.

Ectoderm.—The surface ectoderm of the tentacles is slightly raised into small rounded papillæ, the centre of which is occupied by a bundle of nematocysts, whilst a few deeply-stained granular gland cells are distributed at various points around the periphery. The papillæ are about 0·06 mm. in diameter. They are very numerous near the apex of a tentacle, but gradually become more isolated below.

In longitudinal sections of a tentacle the individual nematocysts of a battery are all subparallel and at right angles to the surface. The ectoderm is here 38 μ thick, and the batteries of nematocysts are about 35 μ in diameter. The nematocysts are of considerable length (27 μ) in proportion to the thickness of the ectoderm, and the area beneath them is probably occupied by slender fibres, the large nuclei of which were, however, only observed. The granular gland cells arranged around each battery are neither so numerous nor so regularly arranged as those of *Antipathes dichotoma*. In sections parallel with the surface of a tentacle the granular gland cells are seen to be arranged singly or in pairs at various points around the periphery of each battery, but there is usually a considerable interval between them. Near the apex of a tentacle the surface ectoderm consists almost entirely of batteries of nematocysts, but towards the middle they become more isolated, and on the body-wall are separated by intermediate masses of tissue, which may be 67 μ or more in width. These intermediate areas contain oval hyaline cells, each provided with a round nucleus. They sometimes appear to be imbedded in a protoplasmic reticulum containing nuclei, but in other parts distinct spindle-shaped cells may be observed between them, extending from the nervous layer to the surface. Each cell has a median protoplasmic dilation in which a deeply-stained round nucleus is situated. The nervous layer is not important, but a few small ganglion cells have been observed at its base. An ectodermal muscular layer is very imperfectly developed, but a few delicate fibres occur applied to the mesoglœa.