

Stomodæum.—The ectoderm of the stomodæum has an interesting structure, which appears to approach the Actinian type more closely than that of any other species yet examined, and is unusually rich in "Stützzellen." The surface of the layer appears to be chiefly composed of epithelial cells, which taper below to a slender filament. The whole of the middle portion of the layer is filled with a very large number of small oval or elongate cells, which are apparently of the granular gland type. Each cell stains deeply in hæmatoxylin, and under a high power reveals a double row of small round granules in its interior. Slender fibres appear to extend from the base of this glandular layer to the nervous layer of the ectoderm, and between them a number of hyaline gland (?) cells occur. The small granular gland cells appear to vary considerably in length, but usually have a similar diameter; here and there, however, a very large one occurs, similar to those of *Antipathes dichotoma*.

Mesoglæa.—The mesoglæa is usually very thin and structureless, rarely exceeding 15 μ in thickness. It presents no features of special interest.

Entoderm.—The entoderm usually varies from 14 to 20 μ in thickness, but at the base of a tentacle may be considerably thickened. The layer appears to consist chiefly, in its thinner portions, of small cubical cells, which contain large oval nuclei. In the thicker parts of the layer a number of oval or angular hyaline gland cells occur near the base, each of which has a small round nucleus. Entodermal muscular fibres have not been observed. The mesenterial filaments are elongate ribbon-like organs, each of which is provided with a rounded dilation at its free extremity. Some of them are apparently forked near the apex. As in other Antipathinæ the shaft of the filament is clothed on each side by entoderm, but the terminal dilation has the same structure as the ectoderm of the stomodæum. In this portion the small oval granular gland cells are well marked.

No ova or spermatozoa have been observed in the majority of the zooids examined, but in two instances what appear to be immature spermatocapsules have been found. In such cases a narrow semicircular band of tissue is found in the lateral sections of the cœlenteron, which at its two extremities is fused with a confused mass of mesenterial filaments. The arched portion is situated just beneath the curved peristome and follows its outline. This band of tissue contains a number of oval capsules, about 45 μ long and 32 μ broad. The capsules are filled with a large number of small round cells, each of which shows a variable number of nuclei. All the cells appear to be at a similar stage of subdivision, and no cells in the resting stage were observed near the wall of the capsule, as in other forms.