

entoderm of which is considerably thickened. A horizontal section of one of the transverse mesenteries is shown in Pl. XV. fig. 2, which includes the whole breadth of the mesentery. The upper oblique band of mesogloea is that of the stomodæum; that below forms part of the body-wall. The mesogloea of the mesentery does not appear to consist here of the usual simple band, but towards the middle the band proceeding from each extremity becomes broken up into a number of fibres, the limits of which could not be observed. It appears clear, however, that the youngest ova are found in the central portion of the mesentery adjoining the mesogloéal fibres. The germinal cells appear to be derived from the entoderm, and various stages in their development are indicated in the figure already referred to. As the ova increase in size they appear to approach the surface of the entoderm. The tissue surrounding each of the large ova is fibrous, but no definite mesogloéal capsule has been observed around them as in the case of *Antipathella contorta*.

*Mesenterial filaments.*—The majority of the specimens contain a few elongate and simple ribbon-like mesenterial filaments about 0·7 mm. long, which reach halfway across the coelenteron in transverse vertical sections. Each consists of a median band of mesogloea, on both sides of which a layer of entoderm occurs (*cf.* Pl. XIII. fig. 5). The free margin on the other hand consists of a rounded cap of cells derived from the stomodæal ectoderm. Other filaments are convoluted and branched. Occasionally one of the short branches bears two lateral dilations which consist of entoderm cells. Such lateral lobes have, however, been rarely observed, and certainly do not appear constant. I am uncertain whether they should be regarded as homologous with the "Flimmerstreifen" of the Actinaria, or as accidental products due to the subdivision of a filament near its apex.

*Parasites.*—An interesting vermiform parasite has been met with on two occasions in serial sagittal sections of *Antipathella subpinnata*. Unfortunately I am unable to give a full description or suggest the affinities of the form in question, as my sections do not include a whole individual in either case. The parasite is usually situated in the lower part of the coelenteron between the base of the mesenteries, the body-wall, and the skeletal sheath, and is usually confined to one side of the lumen. In cases where it is in contact with the zooidal tissues the entoderm is considerably reduced. The parasite occupies that part of the coelenteron which is usually filled with mesenterial filaments. In both cases where the parasite is present the mesenterial filaments form a convoluted mass pushed up into the lumen of the stomodæum, and one or two of the filaments project freely beyond the mouth. This abnormality is probably due to the presence of the parasite, and has not been observed in any other instances. One specimen has been traced through 200 consecutive sections (= circa 1·2 mm.), which include sections through two zooids and two interzooidal areas (cœnenchyma). In the interzooidal areas the parasite completely fills the stolon-like lumen of the coelenteron.