

are smaller, and have no directly depending ridges and filaments, but which, diverging a little, course outwards, with slight contortion of their borders, to form, after a short distance, dense masses of coils on the faces of the mesenteries. The borders of the quaternary mesenteries and filaments arise from the under surface of the disc membrane still further out, and hence their filament tissue does not touch that of the stomach anywhere; they pass out, as do the foregoing, and are similarly distributed. Processes of the muscles of the septa are prolonged into the tentacles, and near the borders of the mesenteries, where the tentacles arise, strong transverse fibres are developed in the mesenteries, which, when traced upwards, are seen to belong to the same system as the circular muscles of the tentacles. The tentacles, when cut across in decalcified sections, show the two laminæ which invested on either side the septa over which they are placed, crossing their bases. The tertiary mesenteries sometimes in *Flabellum alabastrum* bear a few ova, sometimes not. The ova developed on primary and secondary mesenteries are abundant in the deep chambers in the apex of the corallum, and also those of the tertiary, which also pass far down. The sexes are distinct in all the specimens of *Flabellum* which I have dissected. The male elements are enclosed in the mesenterial masses, just like the ova, and apparently fill up all the lower chambers of the corallum solidly.

In *Flabellum japonicum* there are dark pigmented glands in the ectoderm, as in *Sagartia*. The ova commence just below the muscular arch of the mesentery, and behind the dependent spiral coil of mesenterial filament. The coverings of soft tissue on the faces of the septa are excessively thin, and consist of simple endoderm and mesoderm, never having muscles in their substance or anything like mesenterial filaments attached to them. They are evidently foldings up of the lining membranes of the interseptal chambers raised up from the wall. In each fold is developed a septum. In the corallum the septa themselves are seen in the lower part to look like folds.

A diagrammatic representation of the arrangement of the mesenteries and septa, and of the disposition of the layers of tissue composing them is given on Plate XVI. fig. 10. The ideal transverse section which it represents is supposed to be taken at the level of the margin of the corallum so as to pass just below the soft tissue membrane composing the disc. Hence soft tissues are represented as occurring on the outside of the corallum. The section, further, is taken above the level at which the chambers between the mesenteries open into the stomach. The mesenterial muscles are placed on the sides of the mesodermal plates of the mesenteries which lie next the septa, whilst the mesenterial filaments lie on the opposite sides of these.

One tentacle in section is introduced into the diagram in order to show the relation of the tentacle to the septum lying beneath it and to its investing layers.

Flabellum angulare, Moseley (Proc. Roy. Soc., 1876, p. 556). (Pl. VI. figs. 2, 2a, 2b.)
The corallum is thin and fragile, and of a pearly white, covered externally with a