the lumen of the tube, and constricting it like a diaphragm. This doubtless serves to close the tube, since it is covered by a marked layer of muscle fibres, running circularly round the opening.

Where no stomidium is placed, the oral disc exhibits on its ectodermal side a thick layer of radial muscle fibres, arranged in simple lamellæ, which, at most, branch but once. The lamellæ being higher midway between two mesenteries than elsewhere, the radial ridge-like thickenings of the oral disc are the result.

With reference to the relations between the stomidia and the inter- and intra-mesenterial chambers, in my former publication I expressed the opinion that an intra-mesenterial chamber might carry more than one stomidium, *Liponema* thus approximating to the Corallimorphidæ; an opinion which I can now designate as erroneous, on the ground of more accurate investigation. Each intra-mesenterial chamber possesses but one stomidium, which is the more closely approximated to the centre of the oral disc, in proportion as its adjacent septa are of older formation.

The stomatodæum is brownish-violet in tint, and 2 cm. long; on it are placed the marked siphonoglyphes, about 1·5 cm. in breadth, projecting considerably at the lower part of the tube, where they pass into the boat-shaped stomatodæal cone. They are bounded by two stout, transversely pleated, lips. Further, the stomatodæum is marked by about 200 longitudinal folds, of which some 80, by their stronger build, deserve the name of primary folds. Between every two primary folds lie, in many cases, two secondary folds; but at some places one only may occur, or they may be entirely wanting.

The number of mesenteries was determined by the method before mentioned, that of cutting out a sextant of the animal and studying it closely anatomically. I found six cycles, in all therefore 192 pairs of mesenteries. In the first four cycles all the mesenteries reach the stomatodæum, though those of the first two cycles only are attached to it for its whole length; they all possess wide openings near the edge of the lip (internal mesenterial stomata), and their muscular nature so far preponderates that only those of the fourth cycle carry generative organs. In this respect these mesenteries of the fourth cycle agree with those of the fifth and sixth, but the muscular development of the latter is considerably inferior to that of the others. The mesenteries of the sixth cycle are practically nothing else than small genital folds, projecting but slightly into the cœlenteron, and never provided with mesenterial filaments.

Of the generative organs I found exclusively the testicular follicles, containing spermatozoa in parts ripe, in parts only commencing to develop.

It is possible that in this animal a further growth takes place, with the formation of new mesenteries; this I infer from the great number of stomidia. In the sextant investigated they amounted to about 120, or to 700–800 for the whole animal. Since only about 196 intra- and inter-mesenterial chambers are present, and each of the