

dorsal portion of the circular vessel, and passes upwards and backwards to the body-wall, where, surrounded by a thick layer of connective tissue, it joins the medio-dorsal line about 30 mm. behind the tentacles. When the tube reaches the perisoma it gives off four to five, sometimes even as many as nine (Pl. XXXVIII. fig. 9), very narrow branches, which pierce the body-wall and open externally each at the top of a minute papilla. These papillæ, measuring from 2 to 3 mm. in length, are closely crowded together at the base of the genital process, which is situated anteriorly in the medio-dorsal line, and which is in connection with the efferent duct of the reproductive organ. The position of those papillæ is various; sometimes they are placed immediately in front of the genital process, sometimes they form a semicircle along one side of it. Through the openings in the free ends of the papillæ the ambulacral system communicates with the surrounding medium. The deposits of the madreporic canal consist partly of scattered more or less aggregated, minute, slender, straight or curved, branched or unbranched irregular rods, partly of a few irregular wheels differing more or less from those in the integument, and finally of a few irregular perforated plates in the form of a network.

The posterior portion of the digestive tract is generally slightly enlarged, excepting in some individuals dredged at Station 147; two of these possess a large cloaca, which in one of them gives off a cæcal prolongation on the left side; in two other specimens from the same locality the cloaca is almost imperceptible. The parietes of the alimentary canal as well as the walls of the pseudhæmal vessels contain calcareous deposits in the form of spicula (Pl. XXXVI. fig. 3). The reproductive organ (Pl. XLIII. fig. 4, *g*) consists of two large fascicles made up of bundles of small oval cæca (Pl. XLVI. figs. 2 and 3), one fascicle on each side of the dorsal mesentery; its efferent duct opens externally by a pore situated on the top of the aforesaid process which has its place in the medio-dorsal line and reaches a length of 11 mm., and a diameter, at the base, of 2.5 mm. This genital process has sometimes a branch projecting from its side, the efferent duct thus having two apertures (Pl. XXXVIII. fig. 9); sometimes the top of the process is divided into four small branches, only two of which seem to communicate with the efferent duct (Pl. XXXVII. fig. 5). I have only once met with an individual provided with two equally large processes side by side, and in which consequently the common duct must have divided while piercing the perisoma. Thus it is of importance to remember that both the reproductive organ and the madreporic canal are subject to considerable variations in their manner of terminating.

As the above description is taken from the individuals which were obtained at Station 300, it is necessary to point out the more or less important characters which distinguish the specimens brought home from other stations. The individual from Station 232 was in such an incomplete state that no close examination is possible; it is only 25 mm. long, and has thirteen developed tentacles and rudiments of a fourteenth; it is most probable that this form is a distinct species from *Lætmogone*