

*Host*.—All the cysts were collected during the Challenger Expedition, and found on the following species of Crinoids :—

- (a) *Antedon basicurva*, P. H. C. (No. 61), from Station 170 (Kermadec Islands). One individual had a single cyst on the proximal fifth of the arm. Another specimen out of the fourteen had a cyst of *Myzostoma tenuispinum*.
- (b) *Antedon inæqualis*, P. H. C. (No. 62). Station 170 (Kermadec Islands). The specimen having four cysts of *Myzostoma tenuispinum*, had also one pinnule malformed by *Myzostoma willemoesii*. Station 174 (south-west of the Fiji Islands). A specimen with cysts of *Myzostoma tenuispinum* and also a combined cyst of this species and *Myzostoma willemoesii*.

66. *Myzostoma inflator*, n. sp. (Pl. XV. figs. 1–4).

Fig. 1 represents a specimen of *Antedon angustiradia*, bearing at the commencement of two of the arms the cysts of this species. The cysts are pear-shaped, the thicker end being turned towards the disk and the thinner end being attached near the ambulacral furrow of the arms. The length of each cyst is about 3 mm., and they are connected with the arm along their whole length by a transparent delicate membrane. The wall of the cysts is hard and calcareous. In each cyst is a larger female individual and a smaller male, not unlike *Myzostoma murrayi*; in neither are the cirri or the suckers developed, and the female has no parapodia. From the opening of the cyst A the female projected slightly. In spite of its similarity to *Myzostoma murrayi* this species is evidently distinct; the female has a diameter about one-third less than the length; its contour is somewhat oblong, and the walls of the body are thin and delicate, so as to permit of the numerous intestinal cæca (fig. 3) and the ova being distinguished from the outside. The male (fig. 4) is provided like the female with a terminal mouth and anal aperture, and is similar in form. It differs from *Myzostoma murrayi*, not only in the structure of the intestinal canal, but also in the character of the testes, which are ramified through the whole body, after the manner of the free-living species, instead of being concentrated into a rounded and compact organ, as in *Myzostoma murrayi* and other cysticolous species; the genital openings also are not marginal but seem to be on the ventral side and further inwards than usual. I am unable to make any more exact statements, since the lateral portion of the specimen was rather injured, and also somewhat bent towards the ventral side. Some other specimens, from an *Actinometra* dredged at Barbados (Station 294 of the "Blake" Expedition), were in a better condition for examination. The cyst here was sausage-shaped, extending in a radial direction from the mouth to the border of the disk, about 3 mm. in length, and with a hard, rough wall. It was completely fused with the disk of its host throughout its whole extent