

round the opening of each gland. These structures do not, however, form papillæ, but at most appear as flat tubercles when the body-wall is very powerfully contracted.

The whole proboscis is thickly studded with hooks of two forms. On the anterior half the hooks are flattened, with a strongly curved double point; they measure 0.032 mm. in height, and are arranged in distinct rings. On the posterior half of the proboscis the hooks are scattered and in the form of three-sided pyramids, with but slightly bent points. Over the whole proboscis are seen the openings of the ducts (0.017 mm. in length) of the cutaneous glands. On the anterior half of the proboscis these occur in rows between the rings of hooks, about one duct for every three to five hooks; on the posterior half of the proboscis they occur much more sparingly, and are scattered.

The anal and caudal shields are formed from numerous small polygonal or rounded chitinous plates, which are somewhat larger and thicker round the margins of the shields.

The intestine forms a spiral, and a small diverticulum is present. There are two very large segmental organs, which are for half their length attached by means of mesenteries. St. Vincent (Cape Verde Islands); shallow water.

## 20. *Aspidosiphon truncatus*, Keferstein.

*Aspidosiphon truncatus*, Keferstein, Untersuchung über einige amerikanische Sipunculiden, Zeitschr. f. wiss. Zool., 1866, xvii. p. 50, Taf. vi. figs. 15-18.

*Aspidosiphon truncatus*, Selenka and Bülow, Die Sipunculiden, &c. (*loc. cit.*), pp. 118, 119, Taf. xiii. figs. 193-195.

The body is brown, the two grooved shields are of a darker colour. The grooves of the anal shield run from the ventral side to the margin, those of the caudal shield run in radiate fashion. There are numerous rings of very small bent hooks. The longitudinal musculature is divided into strands. The retractor of the proboscis has two roots which originate on the posterior shield. At the point where the intestinal spiral passes into the rectum there is a diverticulum in connection with the latter. Both segmental organs are for the most part attached by mesentery to the body-wall.

Of this species a large number of specimens from the Philippines have been preserved, and I find after examination that they do not in any way differ from those forms which Agassiz found off Panama, and Möbius off Mauritius. The range of distribution must therefore be very wide. It might indeed be possible on close comparison to establish between our forms and those investigated by Keferstein a difference great enough to be considered a specific distinction, but with the form from Mauritius the Philippine species is certainly identical.

The animals were on an average 17 mm. long, not including the proboscis.

*Habitat.*—Station 201, October 26, 1874; lat. 7° 3' N., long. 121° 48' E.; depth, 82 fathoms; stones and gravel; trawled.