*Trochostoma antarcticum*, n. sp. (Pl. II. fig. 7).

*Habitat.*—Station 306A, January 2, 1876; lat. 48° 27′ S., long. 74° 30′ W.; depth, 345 fathoms; bottom temperature, 46·0; blue mud; a single individual. Station 307, January 4, 1876; lat. 49° 24′ 30″ S., long. 74° 23′ 30″ W.; depth, 140 fathoms; bottom temperature, 46·0 blue mud; one specimen.

The specimen brought home from Station 306A has a length of about 40 mm. That dredged at Station 307 is much smaller. The only difference I have been able to observe between these forms and the species of von Marenzeller living in the Arctic Sea is found in the calcareous deposits, which are much more regularly constructed in the southern forms. From the scanty materials I must abstain, for the present, from offering any opinion on the validity of the new species proposed by me.

The caudal portion of the body is comparatively short but very narrow, especially in the smaller individual. Some very minute papillæ surround the anal aperture. The tentacles of the larger specimen have only three short processes, while those of the smaller individual seem to be furnished with about five. The tentacles being retracted, it is almost impossible to distinguish their true shape.

According to Danielssen and Koren, the old individuals of *Trochostoma arcticum* have their tentacles provided with five to seven processes, while the young ones carry but three such processes on each tentacle. The integument is thin, transparent, colourless, and very rough from numerous perforated calcareous tables consisting of a perforated disk and a straight outwardly directed long crown generally composed of three rods, which mostly carry spines and are connected with each other by several transverse beams. When fully developed, most of the disks of the tables have six larger holes and are of a more or less distinctly regular star-like form. Here and there a minute table may be found, composed of a triangular disk with three holes and a simple rod-like spire terminating in hooks (Pl. II. fig. 7, *d*). In the posterior part of the body the deposits present a more irregular shape, and often have some smaller holes besides the larger ones. Diameter of the plates up to 0·2 mm. or more. Many different stages in the development of these deposits are to be seen within the integument. No other kind of deposits is present.

*Trochostoma albicans*, n. sp. (Pl. III. fig. 2; Pl. XI. fig. 3).

Body elongated, anteriorly broadest, suddenly rounded and truncated, gradually tapering posteriorly into a very long slender, narrow, almost cylindrical caudal portion. Tentacles fifteen, short, with their terminal part rounded discoidal and surrounded by four or five short processes. Integument coriaceous or somewhat translucent, very rough, with only one kind of deposits, viz., numerous rather large and irregular perforated