This form differs in some respects from *Thelepus cincinnatus*. The segments as a rule are much narrower, and instead of the uniformly coarse, rugose condition of the dorsum, this new form presents distinct transverse rows of papillæ, one or two, according as the segments are or are not divided by a transverse line. The ventral scutes are less prominent than in the common species, and the entire body more smoothly rounded. The branchiæ are similar in position and structure, though, perhaps, they are a little more delicate than in *Thelepus cincinnatus*. The eye-spots and cephalic region also correspond.

The form of the setigerous processes, as well as the structure of the individual bristles, present no noteworthy differences. The uncinigerous rows, again, differ in being shorter and less prominent than in *Thelepus cincinnatus*. Each hook (Pl. XXVIIIA. fig. 17) shows a longer and more produced basal region, resembling in this respect certain varieties from Guernsey and Berwick Bay in Britain.

The greyish mud in the alimentary canal was crowded with Diatoms and sand-grains, besides a few rounded bodies probably connected with Radiolarians.

This species is characterised by the great firmness of the hypoderm and its depth along the ventral arch, especially towards the middle line. The circular coat is comparatively thin, and so are both dorsal and ventral longitudinal muscles. The nerve-trunks are small and ovoid. The oblique muscles are inserted into the circular coat above the outer part of each nerve. Numerous ova occur in the perivisceral cavity.

Thelepus? sp. (Pl. XXVIIIA. fig. 18).

Habitat.—Dredged at Station 47 (off the American coast, near New York), May 7, 1873; lat. 41° 14′ N., long. 65° 45′ W.; depth, 1340 fathoms; surface temperature, 42°·0; sea-bottom, blue mud.

The specimen is so softened and ruptured that little more can be attempted than a description of the bristles and hooks. It is a somewhat larger specimen than the last.

In general form it seems to correspond with *Thelepus cincinnatus*, but no eye-specks are present. The bristles of the two also agree. The hooks (Pl. XXVIIIA. fig. 18) present two distinct teeth above the great fang, and the dorsal or posterior outline is longer, the basal region is larger than in the variety *canadensis* from the more convex condition of the ventral outline, and the anterior inferior angle beneath the mucro is better developed. In most respects, indeed, there is a general divergence when the two hooks are contrasted. The precise value of these minute distinctions of course is open to criticism, but they are none the less noteworthy. The importance of attention to these characters will be appreciated when the hook of the same species figured by