processes and the ventral scutes. The hooks (Pl. XXXA. fig. 15) present a strongly curved neck, while the crown is but slightly developed, only two or three teeth being visible in profile, as a rule, above the great fang. The dorsal line is inflected, and the basal region has only a rudimentary posterior process. The anterior projection or prow, on the other hand, is largely developed. The teeth on the crown are better developed on the posterior hooks, and the striæ on the body are more distinct.

The intestine had only a little granular mud with a few sponge-spicules and fragments of a thin shelly lamina that had been perforated by a minute boring form. In one specimen the contents of the intestine were coloured dull orange.

In transverse section of the anterior third of the body-wall the great extension of the longitudinal dorsal muscles is apparent. The longitudinal ventral are also somewhat wider proportionally than in *Sabella*. The hypoderm is comparatively thin and deeply coloured with pigment. The basement-tissue attains great development on the ventral surface, not abruptly, but by a gentle curve. A median fissure bounded by pigment also exists. Considerable differences in appearance occur in this region according to the line of section. Where the instrument passes through the ganglia, the circular muscular coat makes a narrow decussation in the middle line over the summit of the fissure, and a broad area of pigment extends from the latter on each side (Pl. XXXVIIIA. fig. 5); whereas when the section divides the interganglionic region, a much wider decussation is found, and the pigment at the fissure is limited (Pl. XXXVIIIA. fig. 6). Minute blood-vessels are present in the thick ventral hypoderm. The ventral blood-vessel is elevated in the alimentary band above the nerve-area. The perivisceral chamber is filled with minute ova.

Dasychone picta, n. sp. (Pl. XXXA. figs. 16–18; Pl. XXXIXA. fig. 3).

Habitat.—Dredged at Station 233A (off Kobé, Japan), May 19, 1875; lat. 34° 38′ N., long. 135° 1′ E.; depth, 50 fathoms; surface temperature, 62°·6; sea-bottom, sand.

This form, which is incomplete, and could hardly be removed from its tube, to which it is glued by its secretion, measures 33 mm. in length inclusive of the branchiæ (8 mm.). The diameter anteriorly is about 1·5 mm.

So closely do the secretion and mud adhere to the body that serious ruptures ensue in most cases when an attempt is made to remove them. The number of the anterior segments and other points are therefore undetermined. The precise shape of the cephalic collar could not be ascertained. The body is pale, tapers from before backward, and has a minute reddish spot at each bristle-bundle.

The branchiæ appear to be about eight on each side, and are beautifully streaked with reddish-brown and orange, the blotches in each case invading the adjoining pinnæ,