the extremity also diverges in each case. The bristles are continued amongst the hooks to the posterior end of the fragment. The posterior hooks (Pl. XVIIIA. fig. 11) decidedly differ in size, curves, serrations, and other points from those of *Lumbrico-nereis fragilis*. The spines are also pale throughout.

In transverse section the body-wall of this species somewhat corresponds with Lumbriconereis abyssorum, having a comparatively large nerve-area, with a short and wide pedicle, while no neural canal is visible in the preparation. In the intestine are peculiar pear-shaped bladder-like structures with parallel granular folds. These may be either parasitic bodies or introduced with the food, probably the former.

At first it appeared as if this form was only a variety of the common Lumbriconereis fragilis, but a consideration of all the points in its structure shows the desirability of separation. Verrill describes a species (Lumbriconereis opalina 1) with four eyes, and similar feet, but as he does not go into the anatomy of the dental apparatus or the bristles their relationship is uncertain.

Lumbriconereis ehlersii, n. sp., var. tenuisetis (Pl. XXXVII. fig. 9; Pl. XVIIIA. fig. 12).

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

Like the rest this form is fragmentary, but it is larger than several of the foregoing, measuring about 48 mm. in length and about 3.5 mm. in breadth anteriorly.

It has much of the facies of *Lumbriconereis fragilis*, and as we are at present in doubt concerning the sexual and other variations, especially in regard to any change occurring in the form of the bristles in the respective sexes, some dubiety remains in connection with the subject.

The head (Pl. XXXVII. fig. 9) is less acutely conical than in Lumbriconereis fragilis, and is marked on the dorsum by numerous longitudinal pigment-streaks. These attain their maximum posteriorly, but yet do not show the distinct specks characteristic of the head of the previous species. There are also a few longitudinal streaks on the ventral surface, but no specks exist on the labial folds. No grooves occur on the snout, either dorsally or ventrally.

The dental apparatus is dark brown, the maxillary region being large in proportion to the space occupied by the great dental plates (Figs. 20 and 22), the horny parts of which are small. The spathulate posterior region of the maxillæ tapers distally. The left great dental plate has five teeth, the right five. Both lateral (anterior) plates are

¹ Report of U.S. Fish Commission, Invert. An. of Vineyard Sound, p. 594.