

certainly belongs to our new genus *Crossopodia*, but, if correctly drawn, has much thicker and fewer feet. The narrow deep *trail* of the middle part of the body on the upper surface of the planes of deposition of the slate, and the narrow cord-like ridge formed by the casts in them on the under surface of the laminae, might possibly be mistaken for a different worm resembling a *Gordius*, without due caution or the absolute demonstration of their nature, afforded by many of the specimens.

Position and Locality.—Absolutely swarms in some parts of the greenish slates of Thorney Lee Quarry, on the Tweed, opposite Ashestiel, near Inverleithen.

Explanation of Figures.—Pl. 1. D. fig 15. From the slates of Thorney Lee Quarry, on the Tweed; natural size; the narrow markings being the trails left by the worms, the broader portions containing the body and fringe-like cirri perfect.

3rd Ord. TUBICOLA.

As their name implies, all of this order inhabit tubes, and are more or less sedentary, though not absolutely fixed organically to their dwelling. Their tube is either simply membranous, formed of dried exudations from the surface of the body, or formed of agglutinated grains of sand, &c., or still more commonly composed entirely of calcareous matter; it is usually long, open at one end and closed at the other. The inhabiting worms are without eyes or antennae, and have the gills attached to the sides of the head (whence their name *Cephalobranchiata*), forming two large feather-like pulsating tufts, having a contractile power sufficiently strong to drive back the blood received from the heart when it becomes aerated. The organs of locomotion are reduced on most of the segments to small processes, to assist in protruding or retracting the creature in its tube; and the cirri immediately about the head are altered into long tentacles, one on each side of the mouth, one of which in *Serpula* is much larger than the other, and bears on its extremity a circular, or conical, calcareous operculum for closing the mouth of the tube (which has sometimes been mistaken for *Patella*).

The tube affords characters for recognizing in the fossil state the two tribes, *Serpulinae* and *Amphitritae*, into which the order has been divided in the recent state.

1st Tribe. SERPULINÆ.

Tube strong, calcareous, dull (not polished), contorted irregularly, and attached to foreign bodies. Marine.

Genus. SPIRORBIS (*Lam.*)

Gen. Char.—Tube discoidally coiled, of few whorls, and attached by one side of its whole length.

SPIRORBIS TENUIS (*Sow.*)

Ref.—*Sow. Sil. Syst.* t. 8. f. 1. and t. 11. f. 8. (*S. Lewisi* on plate).

Sp. Ch.—Discoid, dextral, of one and half or nearly two whorls, partially exposed in a wide, deep, umbilicus; whorls with a broad or high back, sides sloping to the umbilicus, slightly concave, bounded by an obtusely rounded angle on both the umbilical and outer edges; diameter rather less than one line, width of last whorl rather less than one-third the diameter; surface with strong transverse, and obscure spiral lines.

Not uncommon, adhering to the inside of the last chamber of cephalopod shells, so that specimens often seem sinistral. I have only seen the surface very imperfectly preserved.

Position and Locality.—Lower Ludlow rock of Green Quarry, Leintwardine.