

lower end, and the average thickness of its walls reaches 5 mm. In both varieties the outer and inner surfaces are rough. In its spiculation the species shows a close relation both to *Leuconia multiformis* and to *Leuconia caminus* (*Leucandra caminus* H.), but still the differences are considerable. The main character separating the form in question from *Leuconia multiformis* is the absence of sagittal subgastric triradiate spicules; by its distinctly sagittal dermal triradiate spicules the species can be also very easily distinguished from *Leuconia caminus*.

The round flagellated chambers in this species have particularly regular outlines, and are smaller than in any other case, their diameter rarely exceeding 0.04 mm. In one specimen of the variety *tuba*, I discovered many spores, but unfortunately it was not well preserved. The specimen of the variety *massa* proved to be full of Amphiblastulæ.

*Skeleton*.—The skeleton consists of gastric quadriradiate spicules, quadriradiate spicules of the parenchyma, not differing however, either in form or size, from those of the gastric surface, triradiate spicules of the parenchyma, of dermal triradiate and of parenchymal acerate spicules.

*Gastric quadriradiate spicules*.—Basal ray straight, tapering from the base to a sharp point usually shorter (0.18 mm.) and rather thinner than lateral rays, forming with each of these latter an angle varying from 105° to 110°; lateral rays more or less cylindrical, either straight or slightly curved forwards, rarely exceeding 0.225 mm. in length, with a diameter of 0.015 mm.; apical ray curved, more or less sharply pointed, in the var. *tuba* wedge-shaped, length not exceeding 0.06 mm., in the var. *massa* reaching 0.1 mm. In both cases, however, the length of the apical ray is variable, and there are amongst the quadriradiate spicules many triradiate spicules also.

*Triradiate spicules of the parenchyma*.—Most quite regular; rays straight, smooth, tapering from the base to sharp points; reaching 0.75 mm. in length and 0.065 mm. in diameter.

*Dermal triradiate spicules*.—Sagittal; all rays of the same length, rarely exceeding 0.35 mm., and of the same diameter (0.02 mm.), either tapering from the base to sharp points, or of a more cylindrical form; basal ray straight, lateral rays curved forwards, forming each with basal ray an angle of about 115°.

*Acerate spicules*.—In the walls of the body (sparsely scattered here and there in the parenchyma, either isolated or in groups) fine, linear, straight, occasionally slightly curved, reaching 0.3 mm. in the variety *tuba*, not exceeding 0.1 mm. in the variety *massa*, diameter 0.001 mm.; near the osculum (var. *tuba*) piercing the wall in perpendicular direction, either spindle-shaped or rather cylindrical, but sharp-pointed, straight or slightly curved, 0.1 mm. long, 0.004 mm. in diameter.

*Colour*.—Grey and dirty yellowish.

*Habitat*.—Station 36, April 23, 1873; off Bermudas, 32 fathoms; mud.