Gastric quadriradiate spicules.—Basal ray centrifugally, apical ray centripetally directed, lateral rays lying parallel to the inner surface; all rays of the same average diameter (0·015 mm.), lying in the same or almost in the same plane; basal ray straight, tapering from the base to a sharp point, forming with each of lateral rays an angle varying from 96° to 100°, average length 0·25 mm.; lateral rays straight, occasionally slightly curved, either cylindrical or tapering from the base to approximately sharp points, usual length 0·2 mm.; apical ray straight, cylindrical, bluntly pointed, forming with basal ray an angle varying from 180° to 165°, of the same length as the lateral rays, often rather shorter and thinner.

Triradiate spicules of the parenchyma.—Sagittal; always of the same average diameter (0·018 mm.), usually tapering from the base to sharp points, forming three angles of 120°; basal ray straight, reaching 0·3 mm. in length, often shorter (0·2 mm.); lateral rays curved forwards, their average length 0·2 mm.; many of them show a rudiment of the fourth ray, occasionally reaching 0·1 mm. in length, which, like that of the gastric quadriradiate spicules, lies almost in the same plane as the facial rays, being, however, always sharp-pointed.

Dermal triradiate spicules.—Of the size and form of the triradiate spicules of the parenchyma, the only distinction being that the angles formed by basal and lateral rays, which are in the last named spicules usually of 120°, and if varying showing an inclination to grow more acute, here in the dermal triradiate spicules show on the contrary an inclination to grow more obtuse, varying from 120° to 125°.

Stout accrate spicules.—Spindle-shaped, either straight or slightly curved, reaching 3 mm. and more in length, the average proportion between the length and thickness being 30:1; piercing the parenchyma in an oblique direction, the oral angle formed by them and the longitudinal axis of the Sponge varying from 60° to 45°.

Slender accrate spicules.—Either spindle-shaped or more or less cylindrical, straight; surface either smooth or rather rough; average size, 0·8 mm. by 0·0025 mm.

Colour.—Dirty white.

Habitat.—Station 75, July 2, 1873; lat. 38° 37′ N., long. 28° 30′ W.; off the Azores; depth, 450 fathoms; sand.

Leuconia ovata, n. sp.

I have already taken occasion to express in this paper[1] my assurance that the genus *Leuconia*, as I restricted it, is a temporary one, and that its subdivision into many quite independent genera can be predicted. The statement was also made, that one of these conjectural genera will embrace forms like *Leuconia saccharata*, H., *Leuconia ochotensis*, M.M., &c. The name of this new genus would be—according to the law of priority—*Baeria*, Miklucho-Maclay, and its chief characters a strongly developed cortex

[1] Page 28.