solitary form in the collection is one obtained at Station 152, in the Antarctic, measuring 6·5 cm. in length and 2 cm. in breadth, and having a long chain of embryos about 3 mm. in diameter. A fragment of a large specimen was collected in the North Atlantic, on April 13, 1876, in which no muscle bands are visible, and the nucleus is covered with a layer of dark pigment. Also on March 10, 1876, a fragment of a very large specimen was obtained at Station 332, in the South Atlantic, which showed the nucleus covered with dark pigment. These fragments probably belong to this species, but it is impossible to determine them with certainty.

A good deal of variation is found in regard to the length, the shape, and the position of the embryonic chain. In some of the smaller specimens, such as the three collected in the North Pacific, on July 21, 1875, and varying from 8 mm. to 1·4 cm. in length, no embryos are present, while in the specimen obtained in the South Atlantic, on March 9, 1876, and measuring 1·6 cm. in length, there is a well-developed chain of embryos.

In most of the smaller specimens the visceral mass forms relatively a very large projection on the ventral surface with the test over it somewhat thickened. This is seen well in the specimens collected on February 11, 1874 (Antarctic), and on March 16, 1875 (Pacific). Another point in which the specimens differ is the condition of the lateral spines or projections of the test at the posterior end of the body. The two specimens obtained to the north of New Guinea in February 1875, have the two lateral spines well marked, but they also have a median posterior spine placed behind the nucleus and not represented in Traustedt's figure, so that the posterior end of the body becomes triangular in shape, with a spine at each of the angles.

In the specimens collected on March 10, 1876 (South Atlantic), the lateral posterior spines are distinct, and like those figured by Traustedt; but in the specimen obtained the previous day (March 9, 1876) these spines are scarcely present. In this specimen the viscera are very distinct, the nucleus and the embryonic chain being very conspicuous through the test. A clear vesicle is placed at the anterior end of the nucleus: possibly it is the remains of the elæoblast. The dorsal tubercle is more curved than is shown in Traustedt's figure, and its outline forms an irregular sigmoid.

One of the specimens collected on March 10, 1876, contains a large shrimp which completely fills up and even distends its cavity, the mantle and test being tightly stretched over it, and the viscera somewhat displaced.

The dorsal lamina in the solitary form has a more complicated structure than it has in the aggregated form (compare figs. 8 and 11, *d.l.*, on Pl. VI.). In the solitary form the rather narrow transverse ribs become enlarged near the dorsal edge of the lamina to form a series of curious urn-shaped structures (Pl. VI. fig. 8, *c.t.*). Each transverse rib is formed by a pair of closely placed ridges of ciliated epithelium (Pl. VI. fig. 9, and fig. 8, *c.gr.*) separated by a groove. The cells are large and of short columnar form, and bear each a large clump of cilia (Pl. VI. fig. 10). Pigment cells are scattered here and there over the surface of the dorsal lamina between the transverse ciliated ridges.