

the nuclear thickening, and the greater part of one side of the body remains; of the mantle and the nucleus and other internal organs no traces are left.

The figure (Pl. IV. fig. 9) shows the specimen, about one half the natural size, with the test restored as much as possible to its natural condition. The branchial aperture is very large. Its dorsal and ventral lips are semicircular, and the opening measures 6 cm. from side to side. It is surrounded by a slightly thickened border (Pl. IV. fig. 9). The nuclear thickening of the test is placed very far back, close to the atrial aperture. It is over 6 cm. in length antero-posteriorly. It is distinct, from its thickness and smoothness, but is not so prominent as in the case of *Salpa costata-tilerii* (Pl. IV. fig. 1, *visc.*). The atrial aperture is diamond-shaped when seen from the posterior end. It measures upwards of 2 cm. across. Its edges are thin, and are imperfect in the specimen.

The pointed tubercles scattered along the dorsal part of the test are exactly like those which are found on the ventral surface in *Salpa costata-tilerii* (see Pl. IV. figs. 1 and 4). The ventral surface in the present specimen is perfectly smooth. The remarkable tubular processes of the test which are found on the sides of the body are nearer to the ventral than the dorsal edge. Two are placed near the middle of the body, and two near the posterior end (Pl. IV. fig. 9), close to the nuclear swelling. The processes are from 5 mm. to 1 cm. in extreme length, and their terminal openings are about 5 mm. in diameter.

This species differs from the solitary form of *Salpa costata-tilerii* in its external appearance, in the absence of any horn-like processes at the posterior end of the body, in the position of the nuclear thickening of the test, in the position of the pointed tubercles, and especially in the presence of the curious tubular projections on the sides of the body. It, however, resembles the aggregated form of that species in which there are no horns in some respects, but differs in possessing the tubular appendages. If these remarkable structures could be explained as being the modified remains of the processes of the test which join the young aggregated forms together in the chain, then I should be inclined to refer this specimen to *Salpa costata-tilerii*, aggregated form; but no traces of any such projections are to be seen in Traustedt's figures. It is evident that the examination of further specimens is necessary, before this form can be referred to its position with certainty.

Salpa hexagona, Quoy and Gaimard.

Salpa hexagona, Quoy and Gaimard, Freycinet, Voyage, p. 505, 1824.

Salpa hexagona, Traustedt, *loc. cit.*, p. 379, which see for further synonymy.

Two specimens of the aggregated form of this species were collected in the North Pacific on August 24, 1875, lat. 13° 1' 0" N., 151° 50' 0" W., from the surface, at night,