The main axis is about 2 dm. in height, but in the only specimen found it is evidently broken off, and is decorticated towards the summit. It is 5 mm. in diameter at its base, and gives off three branches, the lower at about 8 cm. from the base, this spreads out laterally to a length of 2.5 dm., giving origin to a second branch about 15 cm. long. The two other branches are given off at intervals of 15 mm. above the first; the central one is 9 cm. long; the upper one is the longest and thickest of the three, probably owing to the damage done to the main axis just above its origin, it is also in parts flattened.

The intimate structure of the axis is as in the previous species.

The cœnenchyma is dense and granular.

The polyps are numerous and somewhat irregularly disposed on the main axis and the branches. The polyps, when contracting, first withdraw their tentacles, and then the whole body of the polyp sinks within the connenchyma. After the withdrawal of the polyp, the walls in contact with the connenchyma are drawn together, and the latter get drawn over the polyp, leaving but a mere chink to indicate the polyp-cavity.

The spicules are spindles, with two or four rows of foliated warts, or quadriradiate forms; the spicules in the polyps are slightly curved, needle-shaped forms.

The spicules measure 0.2-0.08; 0.26-0.02; 0.2-0.06; 0.18-0.16 mm.

Habitat.—Stations 233 and 233A, Kobé, Japan, May 17, 19, 1875; depths, 8 and 50 fathoms.

## Genus Eunicella, Verrill.

Eunicella, Vorrill, Amer. Journ. Sci. and Arts, vol. xlviii. p. 425, 1869.

Verrill established this genus, taking Gorgonia verrucosa, Pall., as the type, for those species included by Kölliker in his third section of the genus Gorgonia. Afterwards Verrill' referred this genus to the Plexauridæ, placing it near Eunicea, with which group Ehrenberg indeed had united it. Verrill's diagnosis is as follows:—"Cænenchyma thin or moderately thick, composed chiefly of small warty double spindles, but having a distinct external layer of very small, peculiar club-shaped spicula perpendicular to the surface, which often have one or two whorls of fine spinules towards the larger end. Cells scattered, either raised on prominent verrucæ or perfectly flat. Longitudinal ducts nearly equal, in a circle around the axis. The colour usually white."

Eunicella papillosa (Esper), Verrill.

Eunicella papillosa, Esper, Fortsetzung., p. 173, Tab. L.

A small branch belonging to a colony of this common species was found in a dredging taken in Simon's Bay.

While the spicules of this genus somewhat recall those of Juncella, yet the axis is horny, and quite unlike the solid calcareous axis of the Gorgonellidæ.

<sup>1</sup> Notes on Radiata, No. 6, Trans. Connect. Acad., vol. iii. p. 386, footnote.