Ridley terms the primary branching dichotomous; this may be so in the sense of Dr. Gray; but there is here as little true dichotomy as in any of the Gorgonaceæ. One can distinctly distinguish a main stem, from which larger branches come off at angles of about 45°, and between them, smaller ones at from obtuse to right angles. The large branches, which may attain the thickness of the main stem, give off again, like the main stem, lateral branches and twigs. The stem and the large branches are frequently bent, and, indeed, a divergent bend always takes place at the point of departure of one of the larger branches. This gives the impression of a dichotomy.

The form of the spicules agrees with Ridley's description. The large spicules of the cœnenchyma exhibit the following proportions: 1·7 by 0·145 mm.; 1·375 by 0·16 mm.; 1·7 by 0·156 mm.; 1·5 by 0·13 mm.; 0·9 by 0·18 mm. The smaller spicules of the cœnenchyma measure 0·5 by 0·083; 0·73 by 0·16; 0·6 by 0·1; 0·75 by 0·1; 0·7 by 0·1; 0·8 by 0·1; 0·8 by 0·09 mm. The latter are, as Ridley points out, more abundant. The large spicules occasionally occur, obliquely arranged, in the angles of the branches. The calyx is composed of spicules arranged in eight groups. Each of these groups consists of two rows of spicules, converging towards the margin of the calyx, and finally projecting in eight teeth above the margin.

The tentacular operculum, which is often sunk into the mouth of the calyx, is formed of slightly curved, convergent spicules, bearing fine, sharp, little warts. They measure 0·265 by 0·025; 0·25 by 0·04; 0·2 by 0·05 mm.

There are two varieties of the species in the collection. The one is of a uniform dark carmine-red colour in spirit and of a somewhat fainter red when dry; the tentacular operculum is whitish. A second specimen, which is more graceful in all respects, has a more brick-red colour and the tentacular operculum is yellowish.

Habitat.—Station 232, *Hyalonema*-ground, off Japan; depth, 345 fathoms; bottom, green mud.

The British Museum specimens came from Mauritius, from a depth of 90 fathoms.

5. *Muricella nitida*, Verrill (?).

Muricella nitida, Verrill, Amer. Journ. Sci. and Arts, vol. xlv., May 1868, p. 412.

The short description which Verrill gives (*loc. cit.*) does not enable us to determine with certainty whether the present specimen is quite identical with Verrill's species, especially since no measurements are given in the description referred to. Verrill's diagnosis runs as follows:—"The species is allied to *Muricella flexuosa*, Verr., but differs in the bright purplish-red colour and larger size of the spicula, which compose, almost exclusively, the cœnenchyma. These are relatively very large, long, fusiform, blunt at the ends, often crooked, the surface finely papillose and shining. Those of the