Spicules.—In addition to the remarkable forked spicules, described by Studer, on the polyp bodies and surrounding the base of the tentacles, there are long needle-shaped forms and numbers of flat, irregular, biscuit-shaped spicules.

The large defensive spicules measure 2.5-0.05; 2-0.083 mm. The flattened irregular disc-shaped forms measure 0.83-0.05; 0.85-0.05; 0.28-0.04; 0.22-0.083 mm.

Several greatly damaged specimens of this species, first described by Dr. Studer from Matuku in the Fiji Islands, were found among other Alcyonaria taken off Fiji.

Habitat.—Stations 1748, c and D, off Kandavu, Fiji; depth, 255, 610, 210 fathoms; bottom, Coral mud.

## 3. Ceratoisis paucispinosa, n. sp. (Pl. VI. figs. 1, 1a; Pl. VA. fig. 7).

Axis unbranched. From 6 to 7 dm. long; calcareous internodes 3 to 4 cm. in length; base of broad, calcareous, root-like projections; basal internodes solid; apical, hollow and grooved, the whole axis very flexible; a somewhat dense, membranous coenenchyma, free from spicules, covers the whole axis.

Polyps large, 8 to 9 mm. in height, slender, arranged in somewhat irregular alternate verticils, a little crowded to one side of the axis. No spicules on the body of the polyp facing the axis, a few fusiform spicules greatly varying in size on the dorsal aspect, eight large spine-like dentate spicules surrounding the tentacular base of the polyp. Tentacles large, massive, very imperfectly retractile, studded with minute, irregular, dentate spicules.

The large spine-like spicules on the polyp bodies measure 5-2; 5-3.5; 3-0.13 mm. The small needle-like spicules measure 0.14-0.16; 0.4-0.03 mm. The irregular dentate spicules of the tentacles measure 0.13-0.03 mm. smaller.

Three nearly perfect specimens of this species were taken off Japan; it seems an abundantly distinct species.

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

## 4. Ceratoisis nuda, n. sp. (Pl. VI. figs. 2, 2a; Pl. VA. fig. 8).

Axis unbranched. Calcareous internodes 4 to 6 cm. long; in the younger portions hollow, older portions solid. Polyps rather thickly crowded on axis, in irregular verticils, short, with swollen bases. Cænenchyma of axis membranous; puckering into folds on drying; without spicules. Base of polyps without spicules, a few small needle-shaped spicules on the dorsal side of the polyps. The tentacles large, imperfectly retractile, crowded with acicular spicules.

A few broken specimens of this species were found among other Alcyonaria collected on the reefs at Fiji. As no species of this genus has been found in shallow water, it is