Marenzeller, figured by me, but here and there plates are to be found which have the margin of the holes quite smooth. No miliary granules are visible. The anchors (Pl. I. fig. 11, *a*), generally broken off, have some serrations on the flukes, and their handle is provided with several processes. Length of the anchors about 0·54 mm. Length of the plates about 0·52 mm.

Habitat.—Station 346, April 6, 1876; lat. 2° 42′ S., long. 14° 41′ W.; depth, 2350 fathoms; bottom temperature, 34°·0; Globigerina ooze; a small fragment.

The discovery of this abyssal *Synapta* is of very great interest, proving that the representatives of this genus belong not to the shallow-water fauna only, and it is rather unexpected that no more striking differences exist between forms living under such various conditions. In fact, *Synapta abyssicola* bears the strongest resemblance to several shallow-water forms, and is distinguished by no marked peculiarity. The anchors have the form common to most of the Synaptidæ occurring in shallow water, and the plates have the characters of those of *Synapta distincta*, v. Marenzeller, as well as of *Synapta pseudo-digitata*, Semper.

Genus *Chirodota*, Eschscholtz, 1829.

Chirodota purpurea, Lesson, 1830 (Pl. II. fig. 1).

Tentacles twelve, of equal size, each with about ten digitations, increasing in length towards the end of the tentacles, so that the two terminal are much longer than the remaining ones. There are also tentacles with as many as thirteen digitations. The thin integument is covered with minute dark papillæ, and in some specimens the dorsal surface is provided with whitish tubercles containing wheels. Excepting series of minute, obtuse, unbranched rods (Pl. II. fig. 1, *b*) along the muscular bands, there are only very scattered aggregations of wheels present. Diameter of the wheels (Pl. II. fig. 1, *a*) from 0·14 mm. to 0·16 mm. Madreporic canal single. Polian vesicles of unequal size, and varying in number from eight to sixteen. Calcareous ring consisting of twelve pieces, the five radial pieces being perforated for the nerves. Colour in alcohol, darker or lighter purplish-red. Length about 65 mm. or more.

Habitat.—Station 316, February 3, 1876; lat. 51° 32′ S., long. 58° 6′ W. (Falkland Islands); depth, 4 to 5 fathoms; mud; numerous more or less macerated individuals.

It is remarkable that the forms dredged at the Falkland Islands are devoid of any sigmoid deposits, while those found by the Challenger Expedition in the Strait of Magellan and at Kerguelen Island have, as a rule, such deposits. Therefore it seems to me far more credible that *Holothuria purpurea* of Lesson, which was also obtained at Falkland Islands (Soledad), is identical with the above described forms rather than with