

*Synapta recta*, Semper, and *Synapta indivisa*, Semper. Length of the anchors about 0·24 mm., and that of the plates about 0·17 mm. Vertex of the anchors (Pl. I. fig. 9, *a*) with a few small teeth. Polian vesicles of varying size; five larger, the largest about 6 mm. long, and some rudimentary ones. Madreporic canal single. Immediately behind and attached to the calcareous ring (Pl. I. fig. 10) a narrow firm ring of connective tissue, which, however, does not occupy the whole space between the former and the water-vascular ring, but leaves the greatest part of the tentacular canals free. Colour in alcohol, reddish-brown, with numerous white spots, which are derived from agglomerations of miliary granules. Length of the individual, 30 to 35 mm.

*Habitat*.—Bermuda; a single specimen.

*Synapta distincta*, von Marenzeller, 1881 (Pl. I. fig. 8).

*Habitat*.—Japan, 8 to 50 fathoms; some fragments. Station 233B, May 26, 1875; lat. 34° 18' N., long. 133° 35' E.; depth, 15 fathoms; blue mud; some fragments.

To judge from the calcareous deposits, the fragments in question must belong to an animal, identical with, or at least very nearly related to, the species of v. Marenzeller. Most of the anchors have a length of 0·23 mm., but there are some scattered ones to be seen, which measure about 0·4 mm. The anchor-arms are commonly provided with five to six serrations, but I have also observed flukes with only two or three. The plates differ (Pl. I. fig. 8, *a*) from those in the typical form figured by v. Marenzeller in possessing more holes; they vary in length from 0·18 mm. to 0·3 mm. In addition to the ×-shaped miliary granules, which sometimes become more or less deformed, so as to present the appearance of minute spinous bodies with one, two, or more holes, numerous rounded or oval granules are present, resembling those found in the muscular coats of the body-wall of *Synapta digitata*, &c. Even in *Synapta distincta* these granules belong to the muscular layers or to that part of the integument which borders on them; as a rule, they seem to be present in all the species of this group of *Synapta* examined by me. The body-wall is yellowish-white, more or less transparent. Length of the largest fragment, 95 to 100 mm.

One of the fragmentary specimens brought home from Station 233B has the plates almost without spines or processes, while the other has them furnished with minute elevations; the former is peculiar in having the ×-shaped miliary granules very numerous and closely crowded. The anterior portion of another individual, which differs to some extent from the typical forms, was also obtained from Japan, whence I hesitated long whether to refer it to the species in question or to form a new one for it. The species of v. Marenzeller seems generally to be in possession of calcareous plates of a more irregular shape, and furnished with larger though fewer holes and smaller spines, than is the case in this individual. Besides, the miliary granules of this latter specimen seem to