Chirodota japonica, v. Marenzeller, 1881 (Pl. II. fig. 3).

Habitat.—Port Jackson, 2 to 10 fathoms. Some highly incomplete specimens.

The cylindrical body is very elongated, up to 170 mm. long or more. The alimentary canal is distended by sand so as to fill up the whole peritoneal cavity. The ten tentacles are provided with fourteen to sixteen digitations of almost equal length. No traces of wheels seem to be present. The sigmoid deposits (Pl. II. fig. 3), resembling those in *Chirodota contorta*, Ludwig, have a length of about 0·14 mm., thus being slightly larger than those in the type of v. Marenzeller; they are collected in groups of three to nine. A single Polian vesicle is present. Colour in alcohol is whitish-grey or pale brownish-violet, and the integument is covered with numerous small dark red or violet papillæ.

The species strictly belongs to the genus *Sigmodota*, proposed by Studer for the reception of forms which are devoid of wheels and are characterised by the possession of sigmoid deposits within the integument. So far as is known, no other difference exists, distinguishing *Sigmodota* from *Chirodota*. Now it seems to me that the genus *Sigmodota* would be well founded if it could be proved that the sigmoid deposits were really characteristic of it. This seems, however, not to be the case. In fact, Ludwig's *Chirodota contorta*, besides wheels, possesses such deposits, formed exactly after the same plan as those in the genus *Sigmodota*; consequently, the species just mentioned combines the two extremes with each other, and v. Marenzeller is doubtless right when placing the genus of Studer under the list of synonyms.

Chirodota sp. ?

Habitat.—Station 192, September 26, 1874; lat. 5° 49′ 15″ S., long. 132° 14′ 15″ E.; depth, 140 fathoms; blue mud. Some fragmentary individuals, so incomplete as to make it impossible to determine their position. Only agglomerations of wheels seem to be present. Tentacles destroyed.