

passes to the tip of the arm on the dorsal aspect, and only about two-thirds up it on the ventral.

On the ventral side of each arm, just where the margin of the umbrella is attached, is a peculiar ovoid nodule of cartilaginous consistency projecting inwards, somewhat paler in colour than the surrounding tissue (see Pl. X. figs. 1, 2). This is obviously homologous with the thickening of the margin of the web in *Cirroteuthis mülleri*, alluded to above, and I have no doubt that it is of a similar nature to the structure described by Verrill in the case of his *Cirroteuthis megaptera*.¹ In that case, however, the organ seems to have been long and tentacular instead of being a mere nodule. I do not feel able to suggest any function for these structures, other than that they serve to strengthen the web at its attachment to the arm where it would naturally run the greatest risk of being torn. I do not think that their arrangement in this species lends any support to Verrill's view that "it may, perhaps, correspond to one of the transverse supports of the marginal membranes of *Sthenoteuthis* and *Ommastrephes*," but should rather be disposed to agree with Professor Steenstrup who regards them as comparable to the thickened margin of the web-like expansion of the third pair of arms of *Ommastrephes*. In any case it is interesting to see here a stage in the evolution of the more complete organ, which he has described, another step being represented by the still less pronounced nodule observed in the next species.

The proximal end of the cartilage of the fin was exposed and presented a long grooved articular surface; the one branchia which remained was similar to that of *Cirroteuthis mülleri*, presenting the appearance of a spheroidal nodule with meridional grooves, and looking not unlike an *Oniscus* when rolled up.

Cirroteuthis meangensis, Hoyle (Pl. IX. figs. 12, 13; Pl. XI. figs. 1, 2; Pl. XIII. figs. 5, 6).

1876. *Cirroteuthis* sp., Suhm, Challenger Briefe VI., Zeitschr. f. wiss. Zool., Bd. xxvi. p. lxxx.

1885. „ *meangensis*, Hoyle, Diagnoses I., p. 234.

1885. „ „ Hoyle, Prelim. Rep. I., p. 111.

Habitat.—Station 214, off the Meangis Islands, February 10, 1875; lat. 4° 33' N., long. 127° 6' E.; 500 fathoms; blue mud. One specimen.

Station 171, north of the Kermadec Islands, July 15, 1874; lat. 28° 33' S., long. 177° 50' W.; 600 fathoms; hard ground. One immature specimen.

The Body is much distorted, but appears to have been subglobular in form. The *mantle-opening* is very small, and fits closely around the base of the *siphon*, which is small and bluntly conical, with a still smaller pimple-like extremity; on either side there extends from the dorso-lateral base a curved fold of membrane, which loses itself in the