dredged during the Challenger expedition, the breadth must have been much greater. When fully extended the body appears to be rather depressed, and its broad surrounding brim very thin, especially towards its edge. Here and there a tentacle is found slightly smaller than the others; the terminal part itself as well as its processes are covered with some minute prominences. The pedicels of the odd ambulacrum, about sixty in number, are minute and closely crowded together. The brim, which in some more extended individuals is even as broad as the body itself, is penetrated by a great number of closely-lying canals, which connect the ambulacral system with the minute conical pedicels round the edge. Those canals are plainly visible through the integument in consequence of their walls being of a dark purple colour. The dorsal processes (Pl. XLIV. fig. 8) are very minute and completely retractile; their number does not seem to exceed eight along each ambulacrum. When the body is contracted the thick dorsal perisoma forms large rounded lobes separated from one another by funnel-shaped hollows at the bottom of which the processes are to be found.

The calcareous deposits (Pl. XXXV. fig. 4) of the integument are rather scattered and consist of more or less curved unbranched and spinose spicula. The tentacles, processes, and pedicels contain also spicula of about the same shape.

The polian vesicle attains a length of from 20 to 25 mm. The madreporic canal opens externally immediately in front of the genital aperture; its walls are strengthened by a calcareous network, and by spicula (Pl. XXXVIII. fig. 5). The very narrow part of that canal which pierces the body-wall is destitute of deposits excepting its uppermost part close to the "pore," which is surrounded by a minute network. The cloaca is of considerable size. The calcareous ring seems to consist of a very fragile irregular network, the true form of which I have not been able to study. The reproductive organ consists of two small, thin fascicles, each composed of a few larger and smaller sometimes rather long cæca; the organ opens from 10 to 15 mm. behind the anterior extremity of the body.

Benthodytes sanguinolenta, n. sp. (Pl. XXIII.).

Body elongated, more or less cylindrical, six to seven times longer than broad. Tentacles eighteen, with their dilated terminal part provided with small retractile digitiform processes round its edge. The dorsal surface with a great many very minute, completely retractile processes, scattered over the lateral interambulacra; the odd interambulacrum naked or with a few such processes. Integument thin and pliable; its calcareous deposits dissolved.

Colour in alcohol red, inclining to violet; the back lighter excepting its processes, which are of a darker colour. Length of the largest specimen, about 340 mm. Breadth, about 50 mm.

Habitat.—Station 298. November 17, 1875. Lat. 34° 7′ S., long 73° 56′ W. Depth, 2225 fathoms; bottom temperature, 1.3° C.; grey mud. Three specimens.