

not depend upon the size of the body; the smaller individuals are frequently provided with more numerous pedicels and processes than the larger ones. The largest specimen, about 240 mm. long, which was dredged at Station 300, has only twenty-four pedicels along each side of the ventral surface, while another individual from the same locality, which attains only the size of 155 mm., possesses twenty-nine along the left side and twenty-seven along the right one; and another form dredged at the same station, and attaining a length of 235 mm., carries ten processes along the left dorsal ambulacrum and nine along the right, while a considerably smaller specimen, only 165 mm. long, gives off eleven processes along each ambulacrum. In spite of the fact that the pedicels and processes of one side of the body generally differ in number from those of the other side, a bilateral symmetry is still traceable in their arrangement; this is especially the case with the pedicels, which in consequence of their width and great number are crowded close together side by side; while the processes, which are considerably fewer in number, are scattered irregularly along the dorsal ambulacra and only at the posterior and anterior extremities of the body show a more marked tendency to arrange themselves in pairs.

Only a few individuals have their pedicels fully extended, and these may then attain a length of 30 mm.; they are in most cases very much contracted. The form of the pedicels is almost cylindrical, slightly wider at the base than at the free end, which terminates with a small circular disk of a lighter colour and about 1 mm. in diameter. In the same individual the processes also attain extremely various sizes, some being very short, while others on the contrary measure as much as 150 mm. in length or more. They are very elongated conical, or of an almost cylindrical form, and possess a high degree of flexibility; some of them are considerably wider than others. All of the fifteen tentacles are of an equal size, and reach in their fully extended state a length of 20 mm.; their base is slightly wider, and measures about 6 mm. in diameter. The end of the tentacles is dilated into a thick leathery disk of a light brown colour, on which no processes are distinguishable, unless the insignificant prominences round its edge are to be regarded as such; its surface is uneven and as if wrinkled. It is probable that when the tentacles are fully extended those prominences may be larger, but in all the thirty to forty individuals which I examined, the ends of the tentacles were destitute of true processes as is described above (Pl. XXXIX. fig. 4).

The calcareous deposits (Pl. XXXI. fig. 14-16) present two forms: spicula and wheels. The former have a length of 0.38 mm., are usually simple, straight, or slightly curved, and give off sometimes one or several branches; towards each end they carry some minute spines, which are sometimes found scattered over the whole of the spicula. Excepting in the ends of the pedicels, processes, and tentacles, the spicula are only present on the ventral surface. The wheels offer a great many variations, the largest measuring about 0.14 mm. in diameter, while the smallest only reach a size of 0.04 mm.;