

which are seen in *Irpa*, Dan. and Kor., and *Kolga*, Dan. and Kor. Special attention should be paid to the peculiarity that the C-curved bodies which are found in *Stichopus*, Brandt, as well as in the *Elasipoda* always present a significant dilation at their middle. The branched spicules seem to be present in the majority of the deep-water forms, and may be considered as especially characteristic of the two families *Elpidiidæ* and *Psychropotidæ*; they are made up of four or sometimes three more or less spinose and arcuate arms, and are supplied either with only a single outwardly-directed spinose central process or with several such, which give to the surface of the body-wall a high degree of roughness. It is very surprising to find the wheel-shaped deposits represented in several forms of *Elasipoda*, for these calcareous bodies have always been considered as characteristic of only a few genera of the apodal Holothurids, viz., *Myriotrochus*, Steenstrup, *Chirodota*, Eschscholtz, *Trochoderma*, Théel, and *Acanthotrochus* Dan. and Kor. Two kinds of wheels are distinguishable, viz., large or true wheels and small ones resembling plates, the former of which seem to be never present unless associated with the latter as is the case in *Lætmogone*, *Ilyodæmon*, and *Pannychia*, while the latter, on the contrary, seem to be more independent of the presence of the former, and are sometimes found together with spicules (Pl. XXXII. figs. 21-23, and Pl. XXXIII. fig. 6), as in *Achlyonice lactea*, *Elpidia ambigua*, &c. I do not intend to give any detailed account of the structure of the wheels, but refer back to the description of the species. I only intend to draw attention to the fact that the regularly large nave has in its centre a large hole, from the edge of which an inwardly-directed crown, made up of four to five arcuated arms, rises. I have observed, especially in *Pannychia* and *Ilyodæmon*, that this central hole is sometimes covered with a thin, transparent calcareous membrane pierced by a few sometimes minute openings (Pl. XXXII. fig. 6), the centre of this calcareous membrane being connected with the top of the crown by a short, straight, calcareous rod.

The plates which are present in *Deima* and *Oneirophanta* are of a different structure; those which belong to the former genus are composed, that is to say made up of several layers (Pl. XXXI. figs. 5 and 11), while the plates in the latter genus are simple, discoidal, and flat. The simple as well as the compound plates vary considerably in size, the larger being mingled with the smaller ones; the largest plates I have seen in *Oneirophanta* measure about 2 or 3 mm. in diameter, while those in *Deima fastosum*, attain to 5 mm., and in *Deima validum* to about 7 mm. diameter. The simple plates are perforated by numerous holes, which are always largest at the centre and diminish gradually towards the circumference, where they become almost indistinguishable; the innermost layer of the compound plates resembles the simple ones in the fact that the perforation is more regular and the rather rounded holes decrease towards the circumference, and upon the upper surface of this inner plate, or rather layer, rises a more irregular network, which in *Deima fastosum* appears like a large conical knob (Pl. XXXI. fig. 10), while in *Deima validum* it does not attain such a development, but only gives