

(Pl. XXIV. fig. 7) exactly like those which we have already noted in *Balanites*. Simple oxyhexasters also occur with short principal rays, and long, frequently somewhat rough, terminals. The division of one or several principal rays often does not take place, so that, as in Pl. XXIV. fig. 8, some rays become divided into two or three terminal rays, while others which remain undivided are straight and run out to a sharp point.

Rosettes are represented only by the form figured in Pl. XXIV. figs. 4 and 6. Each of the six smooth and moderately long principals passes into a narrow conical tuft of eight or more almost similar, straight, fine terminal rays, each of which is somewhat rough towards the extremity and is provided with a small, convex, marginally pronged, terminal plate. Here and there, abnormally, one or other of the secondary rays does not occur on the extremity of the principal ray but laterally, and is inserted more or less close to the axial node as if it had moved down to this position.

The pentact hypodermalia have a strong radial ray which is wholly or partially beset with spines, while the four transverse rays which are spread out beneath the dermal membrane but rarely exhibit small spines, and usually appear somewhat roughened on their bluntly pointed extremities.

The autodermalia are hexact pinuli in which each of the freely projecting (usually 0.05 mm. long) distal rays resembles a crowded oval fir cone with a short smooth stalk (Pl. XXIV. fig. 10), or is more rarely narrower and longer (Pl. XXIV. fig. 2).

The four slightly conical transverse rays lying in the dermal membrane, and the somewhat shorter proximal ray, are only beset with small prongs on the outer portion.

While the hypogastralia do not differ essentially from the hypodermalia, the autogastralia which project over the whole convex upper side of the body of the sponge differ essentially from the autodermalia, inasmuch as the freely projecting, and at the same time distally directed ray, is very long (1 mm. or more), narrow, drawn out to a fine point, and also beset with relatively short prongs (Pl. XXIV. fig. 5). On the other hand, the ray directed towards the parenchyma is greatly reduced, or has entirely disappeared, so that the majority of autogastralia no longer represent hexacts but pentacts, in which the short, conical, transverse rays are beset with small prongs either on the outer extremities alone or all over.

The difference between the short crowded hexact autodermalia and the long pointed pentact autogastralia is very clearly indicated on the outer margin of the disc where both border on one another, yet it may also be readily recognised on the other side by the shorter projecting distal ray and the short proximal ray of the outermost autogastralia. Both are really but different members of the same series.

It is noteworthy that in those autodermalia with a greatly prolonged distal ray, which occur here and there between the short and crowded forms, the inner proximal ray is usually absent (Pl. XXIV. fig. 3).

In the parenchyma of the stalk the principal hexacts are in the minority, and the