

bent prongs (Pl. LXXIX. figs. 4, 5; Pl. LXXXIV. fig. 4). These finely pointed prongs often occur over the whole branch (Pl. XCII. fig. 5), or on special portions of the same (Pl. LXXXIV. figs. 3, 5). I am, on the whole, inclined to regard the scopulæ not as pentacts, but rather as diacts or monacts.

TETRACTS.

If two of the six rays of a hexact on the same axis are not fully developed, simple cruciform spicules arise, with four rays in the same plane. Such regular tetracts occur in the outer, and in the inner (gastral) membrane of many Rossellidæ; as also on the lower end of the body of *Hyalonema*, in the quadrate latticework of the main supporting framework in many Euplectellidæ, and in many other species. Rudiments of the two rays which have not been fully developed can be detected at the nodes of intersection. Such regular tetracts are either quite smooth, or uniformly rough (Pl. LVI. fig. 5), or beset with knobs. Many, however, are only rough or knobbed terminally. Some are more or less uniformly pointed, while others are truncated, rounded, or provided with a knob-like thickening. The four rays are not always equally long (Pl. III. fig. 28; Pl. XXXV. fig. 8). In many tetracts they are wholly or partially curved, and that either in the plane of the cross (Pl. III. fig. 27; Pl. XXXI. fig. 15) or in a spherical form (Pl. LIV. fig. 7). A few cases occur, which seem to have arisen, not by the abortion of two opposite hexact rays, but of two rays at right angles. In such forms only one of the three typical axes is fully developed, and of the two others only one ray of each has remained (Pl. III. fig. 20).

TRIACTS.

The three rays of a triact usually lie in the same plane, and consist of two rays belonging to one axis with a third at right angles to these. They are either straight or slightly bent, quite smooth or terminally rough, besides being frequently swollen and knobbed. While the rays of the main axis are generally equal, the unpaired third ray is usually distinctly shorter (Pl. III. figs. 12, 25), and seldom larger (Pl. III. fig. 26) than the others. The insertion of this unpaired ray is often opposite a prong, which doubtless represents an abortive fourth ray (Pl. III. figs. 19, 28). If the unpaired ray is very long, and the two others are bent towards it, a peculiar anchor form results, such as may be seen among the prominent lateral, and basal-tuft spicules of many Hyalonematidæ, such as *Pheronema*, *Poliopogon*, and *Semperella* (Pl. XLVIII. fig. 14a).

Rarely it happens that all the rays are markedly curved (Pl. XVI. figs. 3, 4), and correspond in position to three of the edges of a cube.