polyp walls, which are penetrated by endodermic canals, buds arise. These sometimes develop into simple polyps, but sometimes form long polyp-tubes, which again give off lateral buds. The walls of the polyp calyces, into which the anterior tentacle-bearing oral portion may be completely retracted, contain spicules. In some species these form a continuous network, in others, they are more loosely disposed, and in part are united together by a horny substance. In both cases, the mesodermal layer of the calyx wall acquires a tubular and rigid character. In all cases there can be distinguished (1) principal polyps which form the stem and branches of the colony; these may be termed *axial polyps* of the first and second rank, and (2) *lateral polyps* which are disposed upon the former, usually in spirals. The axial polyps form long tubes with stiffened walls, which are thickened from the apex towards the base. The upper hollow portion, which includes the oral cavity along with the crown of tentacles and the œsophageal tube, is soft, and either beset with loosely disposed spicules, or is altogether without them; it can be retracted into the calyx tube in the same way as in *Clavularia*. The alimentary cavity of the polyp extends the entire length of the calyx tube; the mesenteric folds are limited to narrow ridges. According to Koch, in *Telesto prolifera* only two dorsal folds are continued down to the bases, while the other six cease much sooner. In another species, *Telesto arborea*, n. sp., the mesenteric folds form narrow creases which may be followed to the base. Spicules occur throughout the entire calyx wall, and in *Carijoa* are united together by a horny substance.

The calyx wall furthermore contains a canal-system, consisting of fine endodermic canals, which are in communication with the alimentary cavities of the axial polyps. From these there arise the buds of new polyps, which sometimes remain short, and sometimes develop into long axial polyps of the second order. The latter again produce buds, from which axial polyps of the third order may arise. In some species the axial polyps appear to produce no generative elements, which then seem to be restricted to the secondary individuals. This is the case in *Telesto arborea*, n. sp., where an alternation of generations might therefore be said to occur.

Subgenus *Telesto*, *s. str.* (= *Telesco*, Gray).

The axial polyps spring from stolons or basal prolongations which spread over foreign bodies; they are not very long, and they give origin, on their side walls, to polyps going off at right angles, and differing but little in form or in size from the axial polyps. These polyps may, in their turn, bear accessory polyps. The whole colony is low and only slightly ramified. The calyx wall is for the most part marked by eight longitudinal ribs, with corresponding furrows. The spicules form broad, dentate discs, or ramified, irregular bodies, whose spines interlock so that a continuous layer is formed in the mesoderm.