be that three, or less frequently five, boss-like projections remain, which correspond in their position to the undeveloped rays (Pl. LIX. fig. 14).

The gastral skeleton is unfortunately not preserved, and this fact may make it somewhat doubtful whether I am correct in regarding this form as a thin-walled *Bathydorus*, and not as a representative of a genus *Rhabdocalyptus*, now to be described.

Genus 6. *Rhabdocalyptus*, n. gen. (Pls. LXIV., LXV.).

The body has the form of a moderately thick-walled cup or sack, with smooth external surface. It is attached by a narrowed base or short stalk to a solid body. The wide round oscular opening has a gradually sharpened smooth margin. The interior surface exhibits, between the close round excurrent apertures of the numerous efferent canal or lacunar passages, an irregular ridged network.

The principal parenchymal spicules are more or less long diacts. Besides disco- and oxyhexasters of various sorts, eight-rayed rosettes occur, with several disc-bearing terminal rays borne on the end of each medium-sized principal.

The dermal membrane contains either only rough diacts, or also rough pentacts, tetracts, and monacts. The gastralia are rough oxyhexacts.

1. *Rhabdocalyptus mollis*, n. sp. (Pl. LXIV.).

Among the dried Japanese Hexactinellids which Dr. Döderlein collected near Enoshima, the form figured in Pl. LXIV. fig. 1 (one-third natural size) is conspicuous because of its large dimensions. It is a moderately thin-walled, laterally compressed cup, 35 cm. in height and 20 cm. in breadth at the superior aperture. The diameter of the round compact stalk is about 6 cm. The large cup bears on its side a smaller, more elongated form, 15 cm. in length, and 6 cm. in width at its orifice; while beneath the latter there is a cæcal protrusion or boss.

The wall, which measures in its lower portion 4 to 6 mm. in thickness, becomes gradually thinner towards the upper end, and terminates in an undulating or crisped, smooth, slender, oscular margin, without a fringe of spicules. At the lower portion of the cup, just above the solid, somewhat tuberculated base, there is a round hole, 5 mm. in diameter, which establishes a communication between the gastral cavity and the water outside. The stalk is attached to the firm substratum by a slight basal expansion, and includes here and there some intruded material, especially soil debris. The lower surface of the stalk, where it is fixed to the substratum, exhibits the familiar thin but firm reticulated plate, which is developed in all Hexactinellids at their point of attachment to foreign bodies. The outer surface of the body is not quite uniformly curved, but exhibits