

between the ends of the transverse food-groove. It is evident that if an anterior ray ever was present in any of the ancestral forms leading to *Comarocystites*, this ray may have rested on the suture between the two anterior plates (between plates a, a, of the text diagrams) here under discussion. The outline of the right anterior peristomial plate is more or less obliquely hexagonal, while that of the left anterior peristomial plate is pentagonal.

The posterior side of the transverse apical food-groove also is bordered by two peristomial plates (Plate II, fig. 1B; also thecal plates lp and rp in text diagrams), of which the right is so much larger that it forms about two-thirds of this posterior border. The general outline of this plate is hexagonal, but the apex of the angle on the left side is broadly truncated by a concave curvature, as though three plates were in contact with the left margin of this plate:—a large, more or less hexagonal plate along its lower left margin, and two more or less quadrangular plates in contact respectively with the middle and upper parts of this left margin. The line of contact between these two quadrangular plates is not defined distinctly in any of the specimens examined, but the upper one of these plates borders on the left third of the transverse apical food-groove, and may be described as the left peristomial plate.

8. *The location of the hydropore.*—The orientation of the cystids is determined, not by the location of the mouth and anus but by the vertical plane passing through the mouth and hydropore. The hydropore is regarded as occupying a position directly posterior to the mouth. In *Comarocystites* the only surface structure suggestive of an entrance to a hydropore is a narrow, sinuous, almost linear ridge, extending from the middle of the right posterior peristomial plate (Plate II, fig. 1B; also thecal plate rp in text diagrams), across the suture on its lower right-hand margin, to the middle of the adjoining plate. The upper margin of the latter plate is in contact with the posterior margin of that nodular stereom protuberance which supports the right pair of arms. Along the top of the narrow, linear ridge there is a very narrow, faint groove, suggesting the presence of a narrow slit-like opening. Whatever the homology of this ridge, it evidently locates the posterior side of the theca. In several specimens there is a minute pit just beyond the upper left-hand termination of this hydropore ridge; however, since it was not observed in the majority of specimens, it cannot be determined definitely as a gonopore.

Nothing suggesting a hydropore is known at present in *Amygdalocystites*. In *Canadocystis emmonsii*, however, G. H. Hudson (N.Y. State Museum Bulletin 80, 1905, pp. 273, 274)