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COMAROCYSTITES AND CARYOCRINITES.

CYSTIDS WITH PINNULIFEROUS FREE ARMS.

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(Continued from page 93.)

DETAILED DESCRIPTION OF COMAROCYSTITES SHUMARDI, MEEK AND WORTHEN.

21. *Comarocystites shumardi*, (Figures 1A, B, C, on plate IV) differs from *Comarocystites punctatus* chiefly in the more deeply and more angularly concave thecal plates. These features are well shown by the type specimen illustrated by figures 1A, and 1B on plate I in volume III of the Geological Survey of Illinois. In plates eight to ten millimeters in width the depth of the concavity usually is about three millimeters, in one case equalling four millimeters. From the center of the concavity the inversely pyramidal flattened walls of the concavity slope upward and outward; along lines leading from the center to the angles of these concavities, the flattened walls are separated by more or less distinct narrow grooves, giving the exterior surface of each thecal plate a stellately indented appearance (Fig. 1C). The number of thecal plates in the type specimen probably was somewhere between 65 and 70. The general shape of the theca is shorter and more globose-obovate than in *Comarocystites punctatus*. The line of demarcation between the basal plates is indistinctly defined, but these plates probably numbered more than three.

In his original description of *Comarocystites punctatus* (Canadian Journal, 2, 1854, p. 268) Billings stated that "upon the upper joint of the column stand three low but broad pentagonal plates, with serrated edges above. These form a narrow circular pelvis, and are so closely united at their sides that it is difficult to detect the lines of division between them." It probably was the attempt to make their