

theca is 65 millimeters in height, the length of the column is 108 millimeters, its width near its attachment to the theca is 7 millimeters, at mid-length this width is nearer 5 millimeters, toward the base of the column it increases to 6 millimeters, and then, within a distance of 3 millimeters, the column widens rapidly into a circular attachment disk, about 17 millimeters in diameter. The upper surface of this attachment disk is convex, and the lower surface is sufficiently concave to suggest attachment to a more or less convex object. The outlines of this attachment disk probably were irregularly circular, certain parts extending farther than others from the center. There is no differentiation in size or form between the columnals along the middle third of the stem compared with the columnals toward either end. All are very thin and of approximately the same lateral diameter. During the growth of the stem the columnals probably were added at the top. The stem evidently was sufficiently strong to support the theca in a more or less erect position.

19. *Geological horizon and geographical distribution.*—*Comarocystites punctatus* Billings is known chiefly from the Trenton, in the vicinity of Ottawa, in Canada. Professor Percy E. Raymond, who has made a special study of the Ottawa area (Guide Book No. 3, International Geological Congress, 1913, p. 151), cites *Comarocystites punctatus* only from the quarry located in the angle between the two railroads, several hundred yards north of Walter's Axe Factory quarry, in Hull, a town on the opposite side of the river from Ottawa, north-westward. Here it occurs in the *Crinoid* zone, associated with *Edriaster bigsbyi*, *Cyclocystoides halli*, *Isotelus latus*, and *Amphili-chas cucullus*. The strata in this quarry consist of rather thick-bedded, coarse-grained, gray limestone, separated by black shale partings in which most of the fossils are found. The writer found two specimens of *Comarocystites* on the surface of the highest layer of massive limestone exposed in the Robillard quarry, three miles east of Ottawa, on the south side of the Montreal road. This massive limestone is referred by Raymond to the *Tetradium* zone, and belongs above the *Crinoid* zone. The top of the *Tetradium* zone is exposed also in the quarry immediately behind the axe factory, in Hull. In the overlying *Prasopora* zone Mr. James E. Narraway found several specimens of *Comarocystites*. Several small specimens were found by Mr. Narraway in the lower part of the *Cystid* zone exposures at Nepean Point, within a short distance of the horizon at which *Agelacrinites inconditus* is fairly common. This part of *Cystid* zone is probably not far above the top of the *Prasopora* zone. The well preserved theca illustrated by figure 1 on plate II of the present communication was found by Mr. Narraway, in the quarry at the north-east corner of Bell Street and Carling Avenue, immediately east of the railway leading into the lumber yard east of Dow lake. Here