

the anterior pair between rays II and III, and III and IV, being clearly seen, and the posterior one less distinctly. At the end of each ray is a small, central terminal plate, suggesting the ocular of a starfish.

The greatest diameter is 24 mm.

This species is quite like *L. chapmani* but differs from it in its larger size, longer and more slender arms, less circular outline, and the curvature of rays I and IV.

Horizon and locality:—The type and only known specimen (No. 7941, Vict. Mem. Mus.) was collected at Ottawa by the late T. C. Weston in 1881. It is presumed to be from the "Cystid beds," probably from the foot of Parliament Hill or Queen's Wharf.

LEBETODISCUS MULTIBRACHIATUS SP. NOV.

(Plate 1, fig. 2).

This is a small *Lebetodiscus*, and remarkable for the possession of eight rays, instead of the usual five. Rays I and V are far apart and curve somewhat toward each other, thus partially embracing the anal area. All the other rays are approximately straight. Rays I, II and IV, are all bifurcated, I and II near the center, while IV bifurcates half way between the center and the margin. The disc is not symmetrical, ray III being crowded to the right of its normal position, and rays I and II taking up as much space as rays III, IV, and V. All the rays are short and the border outside them is wide, with rather large imbricating plates opposite the inter-ambulacral areas, and a margin of small plates outside. The supra-oral plates are of the simple type of *L. billingsi*, *chapmani*, *youngi* and *pileus*, No. 5 being a large wide plate, and the two plates anterior to it small. The inter-ambulacral areas are small, and are covered with small plates. Unfortunately the anal area is not well preserved. The type is 10 mm. in diameter.

This form, since it has numerous arms, naturally suggests the recently described *Thresherodiscus ramosus* Foerste, but is really not allied to that species, which has three primary rays, all of which bifurcate at least twice. The present species is much more closely allied to *L. chapmani* and to *L. billingsi*, and when first noted several years ago, was supposed to be an abnormal specimen of one of these species. It is of interest to note that this form is found at the same horizon, the "Crinoid layers" (Hull or Curdsville formation) in the lower part of the Trenton, as *Thresherodiscus ramosus*, these being the oldest of the *Agelacrinitidae*. Unfortunately the specimens found at Kirkfield are usually very badly preserved, so that it is not known how many of the specimens so far found are to be referred to this