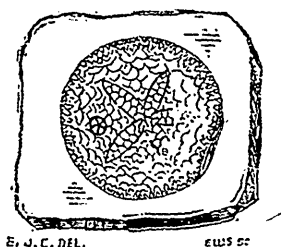


researches have so greatly added to our knowledge of the obscurer organisms of the Silurian age, and who has done so much, in all respects, for the advancement of Canadian Palæontology.



The present communication is sub-divided into two short sections. The first contains a detailed description of the new species. This description, it should be remarked, however, is founded on a single example. The second section comprises an analytical review of the genus *Agelacrinites* in general, more especially with regard to its structural relations and affinities.

1. *Description of Agelacrinites Billingsii*.—Body, circular, or nearly so. In the specimen on which this description is based, its diameter exactly equals half an inch. It is slightly convex above, and flat, or apparently somewhat concave below. From the centre of the upper side, five rays, composed each of a double series of alternating or interlocking plates, radiate towards the margin of the disc, and terminate in well-defined points at about the twelfth of an inch from this margin. The rays, in the solitary specimen under examination, exhibit no traces of pores, even when strongly magnified. Nevertheless, pores may have been, and probably were, originally present. It is easy to conceive how minute orifices of this kind might become obliterated during fossilization; whilst, on the other hand, the object of the rays is altogether inexplicable, unless we look upon them as really representing ambulacral areas. Moreover, poriferous ray-plates have actually been discovered in certain examples of *Agelacrinites*; and analogy, consequently, would lead us to infer that, in all, they existed originally. These rays, at their origin, leave a small central space covered by larger and somewhat rhombic plates. The latter appear to be five in number, and to constitute the first ray-plates, one being common to two adjacent rays. Very possibly, however, each of these rhombic plates may be divided through the centre, longi-