

ceases, other conditions remaining constant, one naturally expects that the forms will spread from many centres outward, or towards the land at least, and that during the continued depression of that land area the sea may transgress upon it and the material formed by the comminution of the hard parts of these organic forms will form a series of deposits resting directly upon the oldland. Such formations are now being formed along parts of the Florida coast at the present day. It seems quite probable that such also, on a somewhat greater scale, may have been the condition of affairs during Devonian time when the corals, which Parks found with the bases attached to an Archean boss, were living in the Hudson Bay basin, and such was the case in many other localities. In the case of the example cited as occurring at Kingston Mills, the fragments of the erinoid stems are sometimes several inches in length. The pebbles of the conglomerate with which these and the Camoceras casts are associated vary in size up to about two inches in diameter, and the fossils are found in the beds not only quite close to the Archean, but also in the upper beds some distance above it. That under these conditions the forms were not comminuted suggests that here at least the water must have been comparatively quiet, and hence we may draw the not unnatural inference that the waters were moderately deep. The calcareous material was probably derived from the comminution of organic forms elsewhere, or it may be in part a chemical precipitate.

A consideration of the foregoing propositions indicates that a feature which one would expect to find in any series of deposits is a zonal arrangement of the various members. Not only may there be two lithological extremes and a mean of synchronous beds (or series of strata) but during the period of continuous depression and deposition there may be formed a continuous band of each of