This species is remarkable for its extremely gently tapering form; the fragment of more than an inch long, showing scarcely a perceptible diminution in diameter. There are twelve and a half chambers in the space of one inch. The surface markings are peculiar, and among the species of the genus known to us constitute a distinctive character.*

29. CORNULITES FLEXUOSUS. var. GRACILIS.

This fossil resembles the one in the Clinton group of New York, but is somewhat more slender, and the annulations a little more closely arranged. The specimens from the rocks of New York present some variation in form, and the comparative distance of the annulations. None of them, however, are so slender as the Nova Scotia specimens.

30. HOMALONOTUS DAWSONI. N. sp. Fig. 17.

Caudal shield somewhat parabolic, obtuse at the extremity, very convex, width at the anterior side greater than the length of the

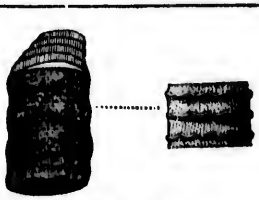

Fig. 16.

* The Arisaig beds afford at least three other species of *Orthoceras*. One, the largest of the three, has a marginal inflated siphuncle, and the septa about one-eighth of an inch apart, for a specimen two inches in diameter. It tapers very gently, and in all the specimens found is elliptical in its cross section. It occurs in the upper series. A second, found in the lower series, is marked with strong annulations placed closely together. A third, occurring in the upper series, and discovered since the specimens were submitted to Professor Hall, is a very beautiful species, apparently new, but closely resembling *O. perelegans*, Salter, of the Lower Ludlow formation. It is cylindrical, but slightly flattened; septa very convex and one-twentieth of an inch apart in a specimen half an inch in diameter; siphuncle central. Surface with slight rounded annulations from one-eighth to one-fourth of an inch apart, and covered with delicate transverse strie, scarcely visible to the naked eye, and about sixteen in a line. Under the microscope the strie appear as thin sharp parallel curved ridges, the spaces between being finely granulated and wider than the ridges. I would name this species *O. elegantulum*.—(See Fig. 16.)—J. W. D.