suspect that a comparison of specimens with *H. communis* Billings will show much closer relations than noted above.

One peculiarity of this species is the strong, thick shell. In a tube 5^{mm} in diameter the shell is 1^{mm} thick. In a shell of *H. Americanus* of the same size, it is not more than $.5^{mm}$ in thickness. The shell appears to be made up of an inner and outer layer, with a space between of irregular width, which is filled in with a layer of mineral matter not unlike the thin inner and outer layers of shells; the effect is that of an inner and an outer shell that did not fit exactly, with the interspace filled with foreign matter.

The shell of *H. Emmonsi* appears to be of the same character, and *H. impar* has imperforate septa towards the apex of the shell similar to those of *H. Emmonsi*.

Three of the figures illustrating this species were drawn by Mr. Ford from the type specimens in his collection.

The section of *H. cinctus* Barrande (Syst. Sil. Bohême, vol. iii, pl. ix, fig. 11) is much like that of *H. impar*. Usually specimens of this genus are so crushed and flattened that it is difficult to institute comparisons between the species preserved in slates and shales and those imbedded in limestone.

Formation and locality.—Cambrian, Georgia Group. Conglomerate and even-bedded limestone on the ridge east of the city of Troy, New York.

HYOLITHES sp. undet.

In the "Red sandrock" of Vermont, a species of Hyolithes occurs that, in its apical angle, 15°, and the outline of its cross-section, resembles *H. primordialis* of the Potsdam sandstone. The material is so poorly preserved and the species of the genus so often are closely related in certain characters, while differing in others, that I hesitate in identifying it with any described form, and, for the present, prefer to indicate only the presence of the genus at that horizon.

Formation and localities.—Middle Cambrian, Georgia Formation. About one mile east of Highgate Springs, in a reddish-colored, decomposed, arenaceous, magnesian limestone; also, in a purplish sandstone above the Olenellus bed east of Swanton, Vermont.

At the Highgate locality, *Olenellus Thompsoni* and *Ptychoparia Adamsi* occur in the same layer of rock.

Genus HYOLITHELLUS Billings.

Hyolithellus Billings, 1872. Can. Nat., new. ser., vol. vi, p. 240.
Discinella Hall, 1873. Twenty-third Rep. N. Y. State Mus. Nat. Hist., p. 246.

Original description.—"Since the sheet containing the description of *Hyolithes micans* was printed off, I have arrived at the conclusion that a new genus for its reception should be instituted. I propose to call it