

tus when similarly compressed, or whether they form the rather large projecting points between the indentations, somewhat as in *Rastrites*, is not determined. The reference to *Climacograptus* is entirely provisional, and not intended to indicate the presence of that genus in the Georgia Formation, but that a form too imperfect for a close generic reference, resembling compressed specimens of *Climacograptus*, occurs at that horizon.

Sooner or later more extensive collections will be made in the Georgia shales, and it may be that the graptolitic fauna will be more fully developed.

The specimen figured by Dr. Emmons as "intermediate species" (*Amer. Geol.*, pl. i, fig. 2) appears to be the same as the specimen under consideration. No description or reference to locality is given by Dr. Emmons.

The specific name is given in memory of Dr. E. Emmons, who struggled so long to maintain the pre-Potsdam age of the formation in which this graptolite occurs.

For the use of the specimen I am indebted to Mr. E. Hurlburt, of Utica, New York.

Formation and locality.—Middle Cambrian, Georgia formation. Parker's quarry, Franklin County, Vermont.

ECHINODERMATA.

Genus *EOCYSTITES* Billings.

Eocystites Billings, 1868. *Acadian Geology*, p. 643, fig. 220.

EOCYSTITES ?? *LONGIDACTYLUS* n. sp.

Plate v, fig. 3; pl. vi, figs. 1, 1a-c.

General form elongate-oval or ovate, as far as can be determined from the crushed specimens. Plates numerous, disposed without apparent order and varying in form, size, and surface characters on the same body. The margin of many of the plates appears to be indented so as to leave an opening, or pore, that passed into the central cavity; these plates are grouped together on one side, so far as we now know. The surface of the plates varies: (1) smooth and nearly flat; (2) smooth and slightly elevated at the center; (3) smooth and depressed at the center, with more or less distinct ridges radiating out to the margin; (4) more or less prominent ridges radiating out from the center to the margin. The plates of type 4 have crenulations on the margin that give rise to an appearance of the presence of pores. None of the openings of the body has yet been observed.

A row of long slender arms appears to have surrounded the summit. Unfortunately our specimens do not show the summit distinctly, nor the