

gins of the branches are curved for a short distance from the radicle, and thence proceed in a uniform divergent line. The entire branch is very narrow at the base, but becomes gradually wider, the full width being attained at about half an inch from the bifurcation, while a few of the serratures towards the outer extremity, not having attained their full development, leave the branches narrower in that part. The same feature is observed in *G. nitidus* and others of this general character, and probably may be observed in all species where the extremities of the branches are entire.

Locality and Formation.—Point Lévy; Hudson River Group.
Collectors.—J. Richardson, E. Billings.

GRAPTOLITHUS PATULUS.

Description.—Fronde composed of two simple widely diverging branches from a small radicle; branches long-linear, having a width from the base of the serratures to the back of the branch of from one-sixteenth to one-twelfth of an inch; serratures oblique, with vertical mucronate points, which from base to apex are more than half as wide as the branch. A well-defined line or ridge extends downwards from the apex of the denticle two-thirds across the branch.

Fragments of this species are numerous upon some slabs of greenish or blackish-green slate where no other species occurs. The fragments are sometimes five or six inches in length, offering in different individuals little variation in width. Sometimes the branches are compressed vertically, and present the smooth, linear base or exterior, which is less in width than when compressed laterally.

The lateral faces of the branches exhibit considerable variety of surface, dependant on the degree of compression, or in some instances, the replacement or filling of the interior by iron pyrites. In such cases, or when the branch is not flattened, the surface is deeply striated, or wrinkled obliquely. In some of the extremely compressed individuals the surface has some appearance of vesicular structure; but this is probably due to influences attending the mineralization of the fossil, or the filling up of the original canal, and not to the structure of the substance itself.

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