

GRAPTOLITHUS EXTENSUS.

Fronde probably two-branched ; branches long-linear, varying in width in different individuals from one-twelfth to one-tenth of an inch exclusive of the serratures, and from one-tenth to one-eighth of an inch including the serratures. Serratures oblique, with the extremities slender and nearly erect, mucronate at the tip ; about twenty in the space of an inch ; base of branch scarcely narrowed, showing a few smaller serratures ; surface strongly striated, the striæ being preserved in those specimens which are extremely compressed.

The branches of this species bear a very close resemblance to those of *G. octobrachiatus*, but an individual in which the base is preserved shows in its peculiar curving and smaller serratures a feature which belongs only to the two-branched forms. The serratures also appear to be more slender, and are slightly closer in their arrangement ; branches of the same size in the two, presenting respectively eighteen and twenty serratures.

This species in separate branches of from three to six or eight inches in length, is abundant on some slabs of decomposing grayish-brown shale, associated with *G. bryonoides*, *G. nitidus*, and others.

Locality and Formation.—Point Lévy ; Hudson River Group.

Collectors.—J. Richardson, E. Billings, Sir W. E. Logan, James Hall.

GRAPTOLITHUS DENTICULATUS.

Description.—Fronde apparently consisting of two broad branches (the base and junction of which are obscure in the specimen ;) margins defined by a rigid line, beyond which on the inner side are serratures which have the form and character of small denticulations inserted upon the margin of the branch and vertical to its direction, broad at base, abruptly tapering above, and ending in mucronate points ; about sixteen in the space of an inch.

This very peculiar species is readily recognised by the denticulations, which have the character of small sharp teeth fixed upon the margin of the branch. These denticles are more widely separated, as well as different in character, from those of any other species observed.

Locality and Formation.—Point Lévy, Hudson River Group.

Collectors.—Sir W. E. Logan, James Hall.