

of *L. laricinus*. The fertile branchlets, as figured by Goldenburg, are also longer than in the Nova Scotia species. For these reasons I may still hold that my species is distinguishable, at least as a well-marked varietal form, and not improbably, when all the parts can be compared, as a distinct species.

Compared with its representative in Europe it may not have attained so large dimensions, as I have not found trunks of greater diameter than one foot. Fragments, however, of the bark show flattened leaf-bases, which, as we know that these were capable of enlargement in proportion to the growth of the trunk, may indicate larger trees than any found entire or nearly so. (Plate IV.)

The remarks already made respecting the internal structure of *Lepidophloios*, being based on a specimen of this species from the Albion Mines, Pictou, need not be repeated here.

LEPIDOPHLOIOS CLIFTONENSIS, Dawson.

(Figs. IX. and X.)

*Lepidodendron Cliftonense*, "The Geological History of Plants," 1888, p. 452; Bulletin Geological Society of America, Vol. II., 1891, p. 533, and Plates 21, Figs. 3, 4 and 22, Figs. 5 to 7.

Sculpture of main stems and large branches resembling that of the previous species, except that the leaf-bases are longer and more thoroughly reflexed, in this resembling those of *L. laricinus* of Europe. In consequence of this the leaves, which are apparently more persistent than those of *L. Acadianus*, are horizontal or droop at their proximal ends, as seen in the photograph (Plate IX.), and only rise upward toward the middle and extremities. This attitude shows that they were still living when the leaf-bases were quite bent downward. The stem forks into branches not more than an inch in diameter (Plate X.), and on these the leaf-bases are still adherent to the branch, and are transversely wrinkled in the manner of *Lepidodendron Wortheni* of Lesquereux. In this state a fragment of a branch might be described as a *Lepidodendron*, and the leaf-bases are not relatively broader than in my *L. decurtatum*, which might well be a leafless branch of this or an allied species. The leaves are in all respects similar to those of *L. Acadianus*, but a very little narrower. They extend on the trunk and thick branches to a length of ten inches without showing the point, and were sufficiently rigid easily to stand erect. The cones are longer and narrower than in *L. Acadianus*, though the scales are broad, as in other species of the genus, and are therefore large in proportion to the breadth of the cone. The cones are supported on long peduncles or fertile branchlets, springing from the sides of the branches and clothed with a few short leaves. The scars and leaf-bases