I have not been able to inspect the original specimens from which the sections were taken, but the text following the above description refers to them as fragments, the largest of which may have been two inches long, an inch wide, and half an inch thick. The statement is also made that they are calcified and, under the microscope, remind one of Prototaxites (Nematophyton); "but the cells are of one-third greater diameter than in *P. Logani*, and are destitute of its peculiar markings, and there are no rings of growth or medullary rays. The wood cells are of good length, somewhat tortuous, loosely aggregated and much thickened by ligneous deposit, which appears to be traversed by many narrow, tortuous lines or pores. The whole stem seems to be perfectly homogeneous, and the only other structure observed was a faint and doubtful trace of the existence of parenchymatous cells in some of the spaces between the fibres."

In a later communication,[1] Sir Wm. Dawson says: "I place these plants here, simply because of the resemblance of their tissues to those of Prototaxites (Nematophyton), with which it is possible they may have had some connection, being, perhaps, stems or slender roots of similar species of smaller size. No additional specimens have been obtained since the publication of my paper above cited (Jn'l. Geolog. Soc.), which would indicate that specimens of these plants are rare at Gaspé, and they have not been found elsewhere. The original specimens were collected by Mr. Bell of the Geological Survey."

This plant occurs in the Middle Erian of Gaspé, and it will be of interest, in connection with what follows, to bear in mind that the *Nematophyton Logani*, Dn., although found in the same locality, belongs to a lower horizon, viz., the Lower Erian.

The desirability of a revision of this species was suggested by its strong general resemblance to Nematophyton, and by the facts developed by the recent examination of the latter. The results obtained by me from the sections in possession of Sir Wm. Dawson, which were submitted to additional grinding, are as follows:—

In transverse section, the cells are large, thin walled, somewhat remote and tolerably uniform in size. Our measurements show that they average about 35 μ in diameter, varying from 32 μ to 59 μ. It will thus be seen that they are, on the whole, fully as large as the largest cells of *N. Logani*,[2] but they do not present the same extreme variation in size, nor is there that peculiar grouping of larger and smaller cells which, in the latter plant, gives rise to the appearance of rings in the stem. We do not lay much stress upon this fact, however, since such tracts of larger and smaller cells may have been present in the original plant, though not represented in the small fragments brought to our notice. No radial openings are to be found, but in their place there are frequent small and irregular tracts of open structure into which the cells penetrate very much as in Nematophyton. The form of the cells is in most cases well preserved; in other cases they show the effect of compression in their flattened form. Moreover, a transverse section of the stem is not transverse to all the contained cells, which are, therefore, not wholly parallel. The somewhat wide areas between the cells are largely occupied by a structure which is not easily made out in all cases, but which consists of smaller tubes running diagonally or transversely to the direction of the general structure, and this is what appears to be referred to in the original description above given, as "a faint and doubtful trace of the existence of parenchyma cells in some of the spaces between the fibres."

[1] Geol. Sur. of Can., Fossil Plants, part i. 20. [2] Trans. R. S. C., vi. iv. 39.