

The memoir containing these results was not published by the Royal Society, but its publication was secured in a less complete form in the reports of the "Geological Survey of Canada." The part of the memoir relating to Canadian fossil plants, with a portion of the theoretical deductions, was published in a report issued in 1871.* In this report the following language was used :

"In eastern America, from the Carboniferous period onward, the centre of plant distribution has been the Appalachian chain. From this the plants and sediments extended westward in times of elevation, and to this they receded in times of depression. But this centre was non-existent before the Devonian period, and the centre for this must have been to the northeast, whence the great mass of older Appalachian sediment was derived. In the Carboniferous period there was also an eastward distribution from the Appalachians, and links of connection in the Atlantic bed between the floras of Europe and America. In the Devonian such connection can have been only far to the northeast. It is therefore in Newfoundland, Labrador, and Greenland that we are to look for the oldest American flora, and in like manner on the border of the old Scandinavian nucleus for that of Europe.

"Again, it must have been the wide extension of the sea of the carboniferous limestone that gave the last blow to the remaining flora of the Lower Devonian ; and the re-elevation in the middle of that epoch brought in the Appalachian ridges as a new centre, and established a connection with Europe which introduced the Upper Devonian and Carboniferous floras. Lastly, from the comparative richness of the later Erian † flora in eastern America, especially in the St. John beds, it might be a

* "Fossil Plants of the Devonian and Upper Silurian Formations of Canada," pp. 92, twenty plates, Montreal, 1871.

† See pages 107 and 108.