there, as if America were the starting-point of that phase of the vegetation, which, in its later developments, became the flora of to-day on both continents. Again, the first undoubted evidences of the flora of to-day, on any considerable scale, are found in the Leda clays of the Ottawa valley.

The geological structure of Ontario, Quebec and Labrador indicates that much of the areas included within their boundaries has been dry land for vast periods of time prior to the glacial epoch, and that within these areas are the oldest portions of the continent. We can then readily conceive that in tertiary times, this portion of the continent, being even somewhat warmer than now, was the home of vast numbers of the plants of the period. The American species, now represented in Europe, we cannot in Canada trace backward beyond the period of the Leda clays; but it is also clear that none of these identical species have as yet been met with in the tertiary deposits of Europe, nor have any, found in the Leda clays, been as yet observed in the European post-tertiary deposits. Seeing, then, that North-Eastern America, having been for so long a time dry land, has always been an available home for vegetation, that the Upper Cretaceous and the Eocene of America, in the resemblance of their flora to that of northern temperate America of to-day, are older than the European Cretaceous and Eocene, that it is only in later epochs in Europe that the generic identity with North American plants became so very distinctly marked, and that in Europe many of the genera of the Pliocene, identical with those of to-day, have since become extinct, there seems a possible presumption, quite apart from that derivable from their present range, that some of these identical European and American plants may be older in America, and, being chiefly northern temperate in range, may have originated in northern temperate America.

There are other interesting questions in this connection. The rounded or smoothed, often striated, character of the rocks, and the presence of the boulder clay and its accompanying boulders, would, if we admit the action of glaciers in the work, appear to prove the higher altitude of, per-