

With two remarks, sufficiently brief, we would venture to conclude. The first is, that there need be no jealous feeling between rival routes to the West—despite the statements with which we have been surfeited and discouraged. Those who have studied the progress of the Western Trade will have no chicken-hearted fears on this score. The second is equally true and pertinent, and it is, that the Ottawa route would, to a large extent, tap different countries and markets to the St. Lawrence, and that herein again the country might largely benefit.

J. A.

## INFLUENCES OF SOIL ON VEGETATION.

### CONTINUED.

The prevalence of one or other of these ingredients will determine the degree of cohesiveness, or tenacity of soils, and also their power of attracting and retaining moisture; and different admixtures too, are otherways favorable to different orders of plants. The prevalence of one substance is favorable to the growth of one plant, and another to another. The texture of soils is of great importance; for it is evident that, in a light and unstable soil, no plants can live except those distinguished by very humble growth, and possessed of large or fibrous, tangled, and creeping roots, or trees or shrubs whose roots sink into the earth, and so retain their position in comparative security. It need hardly be added that compact soils are distinguished by a vegetation of a different character. We thus see, then, that the texture and proportional admixture of soils operate powerfully, along with other causes, which it would be impossible here even to glance at, and which are not embraced under this paper, in regulating the character of vegetation and its gradations of luxuriance: and that consequently the successful cultivation of any vegetable on a particular soil must depend on an adaptation of the texture and admixture, or composition of that soil to the habit of growth and choice of that particular vegetable.—It may be here remarked, that we find plants affecting a dry and hight soil, often distinguished by a covering of a hairy or woolly nature, which may be presumed to afford them a multiplication of absorbent pores, and to assist them in clinging more securely to the very unstable body in which they are imbedded. Perhaps both objects, and others which we must not go into, may be contemplated and ensured by this wise provision.

As it may escape us afterwards, we may here mention another very extraordinary and wonderfull provision of nature in the power with which she has endowed some plants of adapting their growth to certain unfriendly situations and conditions. It is well ascertained, and we have *proved* it, that many fibrous rooted plants, if placed in an arid soil, acquire the bulbous form of root; and that, when is removed again to a congenial soil, the fibrous type is restored. This is no doubt intended to furnish the plant in an arid soil with a provision against