raphy and soil-constitution of the Illinois prairies points to a different and a peculiar history. Moreover, trees occupy the drier knolls of the prairies in the midst of the common atmospheric conditions.

Exactly the reverse of this theory is that which attributes the absence of trees to an excess of moisture in the soil at certain seasons. But we well know that there is no soil or situation so wet and stagnant but certain trees will flourish upon it—the willow, the cottonwood, the beech, the black ash, the alder, the cypress, the tupelo, the water-oak, the tamarack, the American arbor-vitæ, or some other tree—some of them standing joyously half the year, if need be, in stagnant water. Many swales are indeed treeless; but is this in consequence of the inability of a willow to take root and maintain itself, or rather in consequence of the formation of the swale in times so recent that the germs of trees have not yet been scattered over it? Moreover, wetness can not be attributed to many portions of the Illinois prairies which are entirely treeless. Is there a different cause for treelessness here?

Lastly, it has been suggested within a few years, by high geological authority, that the lack of trees is caused by excessive fineness of the prairie soil. It can scarcely be denied, however, that other soils, as pulverulent as that of the prairies, are densely covered with forest vegetation, and that in the same latitudes and under the same meteorological conditions. On the other hand, certain soils of a coarser texture are equally treeless. But the final objection to this theory, and to all theories which look to the physical or chemical condition of the soil, or even to climatic peculiarities, for an explanation of the treeless character of the upland prairies of the Mississippi Valley, is discovered in the fact that *trees will grow* on them when once introduced—not water-loving trees exclusively, but ever-