

But the streams to the westward do not bring down liquid mire, and are not charged with any sediment. The soil of the swamp is formed of vegetable matter, usually without any admixture of earthy particles. We have here, in fact, a deposit of peat from ten to fifteen feet in thickness, in a latitude where, owing to the heat of the sun, and length of the summer, no peat mosses like those of Europe would be looked for under ordinary circumstances.

In countries like Scotland and Ireland, where the climate is damp, and the summer short and cool, the natural vegetation of one year does not rot away during the next in moist situations. If water flows into such land, it is absorbed, and promotes the vigorous growth of mosses and other aquatic plants, and when they die, the same water arrests their putrefaction. But as a general rule, no such accumulation of peat can take place in a country like that of Virginia, where the summer's heat causes annually as large a quantity of dead plants to decay as is equal in amount to the vegetable matter produced in one year.

It has been already stated that there are many trees and shrubs in the region of the Pine Barrens (and the same may be said of the United States generally), which, like our willows, flourish luxuriantly in water. The juniper trees, or white cedar (*Cupressus thyoides*), stand firmly in the softest part of the quagmire, supported by their long tap-roots, and afford, with many other evergreens, a dark shade, under which a multitude of ferns, reeds, and shrubs, from nine to eighteen feet high, and a thick carpet of mosses, four or five inches high, spring up and are protected from the rays of the sun. When these are most