

3rd. The process of restoration may be interrupted by successive fires. These are most likely to occur soon after the first burning, but may happen at any subsequent stage. The resources of nature are not, however, easily exhausted. When fires pass through young woods, some trees always escape; and so long as any vegetable soil remains, young plants continue to spring up, though not so plentifully as at first. Repeated fires, however, greatly impoverish the soil, since the most valuable part of the ashes is readily removed by rains, and the vegetable mould is entirely consumed. In this case, if the ground be not of great natural fertility, it becomes incapable of supporting a vigorous crop of young trees. It is then permanently occupied by shrubs and herbaceous plants; at least, these remain in exclusive possession of the soil for a long period. In this state the burned ground is usually considered a permanent 'barren,'—a name which does not, however, well express its character; for though it may appear bleak and desolate when viewed from a distance, it is a perfect garden of flowering and fruit-bearing plants, and of beautiful mosses and lichens. There are few persons born in the American colonies who cannot recall the memory of happy youthful days spent in gathering flowers and berries in the burnt barrens. Most of the plants already referred to, as appearing soon after fires, continue to grow in these more permanent barrens. In addition to these, however, a great variety of other plants gradually appear, especially the *Kalmia angustifolia*, or sheep laurel, which often becomes the predominant plant over large tracts. Cattle straying into the barrens deposit the seeds of cultivated plants, as the grasses and clovers, as well as of many exotic weeds, which often grow as luxuriantly as any of the native plants.

4th. When the ground is permanently occupied for agricultural purposes, the reproduction of the forest is of course entirely prevented. In this case, the greater number of the smaller plants found in the barrens disappear. Some species, as the *Solidagos* and *Asters*, and the Canada thistle, as well as a few smaller plants, remain in the fields, and sometimes become troublesome weeds. The most injurious weeds found in the cultivated ground are not, however, native plants, but foreign species, which have been introduced with the cultivated grains and grasses; the ox-eye daisy or white-weed, and the crowfoot or buttercup, are two of the most abundant of these.