

burned, the same description of wood is immediately reproduced. This may be easily accounted for. The soil contains abundance of the seeds of these trees, there are even numerous young plants ready to take the place of those which have been destroyed; and if the trees have been cut in winter, their stumps produce young shoots. Even in cases of this kind, however, a number of shrubs and herbaceous plants, not formerly growing in the place, spring up; the cause of this may be more properly noticed when describing cases of another kind. This simplest mode of the destruction of the forest may assume another aspect. If the original wood has been of kinds requiring a fertile soil, such as maple or beech, and if this wood be removed, for example, for firewood, it may happen that the quantity of inorganic matter thus removed from the soil may incapacitate it, at least for a long time, from producing the same description of timber. In this case, some species requiring a less fertile soil may occupy the ground. For this reason, forests of beech growing on light soils, when removed for firewood, are sometimes succeeded by spruce and fir. I have observed instances of this kind both in Nova Scotia and Prince Edward Island.

2nd. When the trees are burned, without the destruction of the whole of the vegetable soil, the woods are reproduced by a more complicated process, which may occupy a number of years. In its first stage, the burned ground bears a luxuriant crop of herbs and shrubs, which, if it be fertile and not of very great extent, may nearly cover its surface in the summer succeeding the fire. This first growth may comprise a considerable variety of species, which we may divide into three groups. The first of these consists of those herbaceous plants which have their roots so deeply buried in the soil as to escape the effects of the fire. Of this kind are the various species of *Trillium*, whose tubers are deeply embedded in the black mould of the woods, and whose flowers may sometimes be seen thickly spread over the black surface of woodland, very recently burned. Some species of ferns also, in this way, occasionally survive forest fires. A second group is composed of plants whose seeds are readily transported by the wind. Pre-eminent among these is the species of *Epilobium*, known in Nova Scotia as the fire-weed or French willow, (*E. angustifolium*), whose feathered seeds are admirably adapted for flying to great distances, and which often covers large tracts of burned ground so completely, that its purple flowers com-