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DISASTER IN AN IDAHO SOCIETY

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In human affairs there are frequent crises, followed by more or less successful periods of reconstruction. The wounds of famine, pestilence and war are slowly healed, although the hideous scars may remain for centuries. Even now we are in the midst of recovery from the recent unpleasantness "Over There". Some of those wounds are hard to heal, and our recent European friends and foes are but beginning to mend. Their cure is a matter of decades.

Such convulsions in our human society are too frequent, but not common. However, in Idaho there is a society that yearly sustains the paralysing shock of disaster, and the process of healing is continuous. This society is the forest; its enemy is fire; nature effects its reconstruction by covering the burned areas with small, new trees.

May we not claim the forest as a society, even as the human society? In a forest the trees are neighbors, continually reacting on each other. There is between them strong competition for light and moisture, but they mutually oppose a destructive wind—mutual strife and mutual aid—and organization is not lacking. Here on the dry south hillside is a nation of yellow pines, while there just over on the north slope is a melting pot of cedars, hemlocks and firs. An army of white firs or hemlocks may migrate, invade a forest of white pines overcoming the latter, and form a fir hemlock forest in its place—an unconscious conquest, but quite as effective as

one on the human plane. Unfortunately our forest friends further resemble us in being afflicted by disease and troubled by insects.

The great catastrophe, however, is fire, and the annual burns offer numberless examples of reconstruction in the tree society. On the area burned the tree population may be reduced in varying degrees, or as so often happens, every one may be destroyed. Then it is a question of repopulation. The desolate area must be settled and reclaimed again. Such work needs hardy pioneers like the tamarack and white pine and lodgepole pine—the advance guard of the new forest arising from the millions of seeds blown over the burn from adjacent woods. If the burn was not severe and some seed trees were left, the area may be quite well settled by the second year, but repeated burning may delay the complete reconstruction for twenty years or more.

Slowly these young communities develop, and soon from what was a blackened waste has sprung a green young forest. The larch and white pine pioneers have led the way. Under their protection have entered the more staid white firs and Douglas firs, and the latest to arrive will be the solid citizens like spruce, hemlock and cedar. Then we have the typical forest of the Idaho white pine type.

These areas of young forest may be found in the northern part of state and in all stages of development, from the one year old seedlings that have just appeared to the old timber now being cut by the loggers. Recently much

interest has been aroused as to the probable development of these young forests and their future worth. As the loggers cut out more and more of the old timber they will depend on these younger forests for their future operations. The forester estimates that white pine will be about ripe for cutting at 80 or 100 years of age. In a region where the mature timber will disappear within 30 years or less the loggers will be turning to forests now 50 to 70 years of age. For this reason those who own quantities of this young, immature timber are interested in knowing how much wood they will yield when they are ripe.

The forests now being cut are several hundred years old, so yields from these areas cannot be applied to the material which will be cut as soon as it is ripe, i.e., at 100 years for example. To throw some light on the question it has been necessary for the School of Forestry to send men out to study the young forests which clothe the old burned areas.

These studies have shown that the forest reconstructions show tremendous variation. They all belong to the western or Idaho white pine type but this type, is so called simply because the white pine is a common tree and the most valuable of all those mixed with it. In mixture are white pine, cedar, spruce, hemlock, white fir, Douglas fir, lodgepole pine, etc. If one considered an area of several square miles he probably would find all of these species mixed together and an abundance of each, but on small areas of a few acres and up to several sections in some cases the species are apt to be grouped. Here is a patch of lodgepole pines with little else; there is a group of white pines exclu-

sively covering ten acres, and elsewhere will be a mixture of several or all of them. The variety is infinite.

We have also learned that this forest reconstruction after fire is a thing of great value as shown by the large amount of wood grown per acre by a young forest in a hundred years. If the acre is completely covered with trees, but the soil is poor, the one hundred year old forest will produce about 25,000 board feet of lumber when cut. On good soil the yield will run up to 65,000 board feet and over, enough to build four modern bungalows with five rooms each. The average acre might build two or three such houses.

Reconstruction is a hopeful thing; it deals with the promise of an ideal to be attained. Such is the principle involved in the story of a certain forty acre woodlot on the St. Maries River in Idaho. Bordering a state road, it is a fine body of stately white pines, standing close together—a reality of beauty and shelter and a promise of wealth. Thirty years ago this was a fire scarred waste with nothing but bushes—the farmers berry patch. Today it bears trees over sixty feet high. The owner views it with pride and thinks of his little son whom he sees as a grown man reaping a tidy sum from the old berry patch. Forty years hence each acre will yield at least six hundred dollars, and if allowed to grow will greatly increase in value up to the age of one hundred years.

Such is nature's reconstruction in the forest after the passing of the great enemy ---fire.