

First—That the Woodlands Section of the Canadian Pulp and Paper Association wish to place on record their deep appreciation of the commercial utility of the work of the Dominion Entomological Branch of the Department of Agriculture, particularly the Forest Insects section, under Dr. Swaine, which directly concerns our industry and recommend sufficient funds be provided in the estimates and placed at the disposal

of this department to at least double the number of field parties in 1920.

Second—That in view of the large number of fires caused by coal-burning locomotives passing through our forest areas and the great losses resulting therefrom, that this meeting recommend that such railways be electrified where the water-falls in the forest areas are ample to supply the necessary power."

"LIGHT BURNING" CONDEMNED BY U. S. FOREST SERVICE.

By H. S. Graves, Chief Forester of the United States.

Light burning advocates assert that by firing pine forests every few years the woods will be kept clean and inflammable debris without injury to the merchantable stumpage, even without substantial injury to the young growth. The constant cleaning out of small stuff, underbrush and litter supposedly would thus protect the woods from serious conflagrations. It has even been claimed that pine forests protected by this system will no burn, and the whole thing is to be done at a cost of a fraction of a cent an acre.

BRUSH PATCHES ARE RESULT.

As a matter of fact it is precisely the repeated firing of the woods which has steadily eaten up the pine forests of California. Our national forests of that state contain close to two million acres of brush patches, which once were heavily timbered. Wiping out the forests on these areas in the national forests alone has cost the timber resources of California on the basis of average figures, around 37 billion feet of stumpage, and probably \$75,000,000 in value at the present time. This loss is not the result of a few large conflagrations. Largely it has come about from one ground fire after another, extending over a total period of 50 or 100 years. Not only does each of these ground fires destroy much or all of the young growth; the butts of the old timber are eaten out, inch by inch. After every burning a few more of the old trees topple over in the wind. The ultimate result is a brush patch.

To me it is an absurd proposition that we can now go into the pine forests and fire large areas deliberately at a negligible cost per acre, which is one of the main claims of the advocates of the system, without continuing the

same process of gradual but irresistible destruction. The light burning is supposed to be "controlled." In practice this control apparently amounts only to choosing the time of year when the woods are fired. The Forest Service has studied every area which it was able to learn about where intentional light burning has been practiced. Its effects have been substantially the same as those of the unintentional ground fire in the California pine forests. In every case at least a large part of the young growth is killed. In every case more or less injury has been done to old timber, except, where large trees have been protected by costly methods, such as raking debris from the butts or piling earth around them, methods so costly that the light burners have now abandoned them.

NO YOUNG GROWTH TO SPARE.

The Forest Service has no young growth to burn up. Neither has it any merchantable stumpage to sacrifice to a theory of protection which is essentially destructive. Hundreds of thousands of acres of national forest land in the western pine belt, which have been protected successfully for 12 or 15 years, now furnish a practical demonstration of what these forests can be made to produce under a genuine system of fire protection. Their brush patches are disappearing in thickets of pine saplings. The net growth per acre has been tremendously increased. The timber which the whole country will need when our virgin forests are depleted is now being produced. The Forest Service must oppose with the utmost vigor any system of protection which will wreck these growing forests or which will make it impossible to produce similar forests in the western pine belt generally.