

creased number of patrol men for shorter periods of one to three months.

The chief sources of fire risk in British Columbia are: settlers clearing land; railways; logging operations; and miscellaneous travellers in the woods.

The law requiring all the settlers to secure permits from employees of the Forest Branch before setting out fires between May 1st and October 1st has become part of the custom of the country, and has produced such excellent results that the Forest Branch is securing the co-operation of the settlers of practically all the districts. The increase in the number of fire-wardens this year has also greatly facilitated matters in this respect.

A great source of fire risk during British Columbia's present stage of development is the construction of railways; the Forest Branch is assuming that the expense, following upon the adoption of regulations framed to reduce the fire risk, is just as legitimate a part of the expense of railway construction as the expense incurred in clearing or grading the right-of-way. The Forest Act and the Railway Act of British Columbia were drawn up on the above assumption. The most important regulations under the two Acts quoted require:

A. That railway companies in construction work must clean up all slash within 200 feet of the railway.

B. That railway companies in construction work must clean up all slash caused by the cutting of timber; the building of camps; the construction of 'tote' roads; or in any other manner

C. That during construction the railway company must maintain a patrol satisfactory to the Forest Branch and must pay all expenses of that patrol or of extinguishing any fires starting from the construction work.

The Forest Branch has endeavored to secure compliance with the above regulations from contractors throughout the Province. As a result, contractors on the Grand Trunk Pacific, Canadian Northern Pacific and Canadian Pacific Railway lines have piled or burned brush on the areas logged over by them in securing ties and other timbers; and have cleaned up in a satisfactory manner all the slash thrown off the right-of-way into the timber adjoining roads and railway right-of-way. Where contractors have been unwilling or inclined to refuse to carry on this work, they have finally agreed, when faced with actions in the courts or with cancellation of their various timber privileges. As railway contractors have never met with the enforcing of such regulations elsewhere in Canada it is not to be wondered at that some of them rebel.

The Forest Act provides the Forest Protection Fund for both fire patrol and per-

manent improvements. During the past winter and spring officers of the Forest Branch, assisted by two telephone experts have been locating telephone lines; the construction of several lines have been undertaken chiefly in the Cranbrook and Vernon Districts. In several instances the expense is being charged between the Forest Branch and the owners of timber lands or companies interested in watershed protection. The municipalities of Armstrong and Vernon have made grants to assist in the construction of a telephone line to a 'look-out' point which commands a view of the water-shed upon which these two towns depend for their water supply. A similar co-operative arrangement is under consideration at present between the Forest Branch and the Irrigation Companies and the towns of Kelowna and Penticton.

The Forest Branch has also under consideration at present the opening up and improving of trails which will increase fire protection. Motor boats have been built for fire patrol on Arrow Lake and Kootenay Lake. Canoes are being purchased for patrol on the Fraser, Columbia and Thompson rivers and ten motor boats have been secured for fire and timber inspection on the Coast.

The Forest Branch has taken up with the lumbermen of the Province the question of slash burning. It has been found by experiment that slash burning on logging operations in the different forests of the Province is practicable; costs very little money; and greatly increases fire protection. Arrangements have been made with a number of the most prominent logging companies in British Columbia to have their logging slash burned over this spring, and such burning as has been carried on up to date has proven very satisfactory and has greatly decreased the fire danger. Figures on the cost of slash burning are being collected and a statement will be issued this fall dealing with this subject. It is found that railway contractors who burned their slash after tie cutting operations this spring did so at very little expense and removed any serious fire hazards.

A co-operative agreement has been made with the Dominion Entomologist providing for an investigation of the economical forest insects of British Columbia. This investigation will be carried on this summer by Mr. J. M. Swaine.

The question of an efficient staff is, perhaps, the most vital problem that has to be handled at the present time—a staff that understands its business and is prepared to attend to it.—R. H. Campbell, *Director of Forestry for Canada, at the Annual Meeting of the Commission of Conservation.*