

The first and most important factor in prevention of fire is education. The settler, tourist, woodsman and others must be made to realise the vital importance of preventing the destruction of the forests by fire.



A hard method of making fire.

Education through press articles, pamphlets, moving pictures, and even by appeals from the clergy is resorted to in order to impress on the public its duty and responsibility in preventing forest fires.

The school children, especially in forest regions, are taught by suitable methods of the necessity of protecting the forests.

Ontario has legislation which requires that a person setting out fires during the dangerous season shall have a written permit before a fire can be started. Permits are issued by the forest ranger, and a staff of rangers is kept in new settlements to enforce the regulations. It is intended that the settler shall not be handicapped in clearing his land and the ranger must be in close touch with the settler so that he can obtain a permit with little trouble. The advantage of the "permit system" is that indiscriminate burning cannot take place, and the fire prevention service is responsible for all fires burning within a given district. During the summer of 1918 about 10,000 permits for burning were issued by the Forestry Branch officers.

During 1917 and 1918 about 50 per cent. of the fires occurring in forest regions were caused by sparks from locomotives.

To prevent railway fires, the Forestry Branch works in co-operation with the Board of Railway Commissioners for Canada. Locomotives are inspected to insure proper condition of screens and other fire preventive appliances. Right-of-way conditions in regard to grass burning, etc., are inspected, and patrols are placed along railway lines where special hazards exist.

Another matter which is receiving attention is the fire hazard about towns and settlements in forest regions.

The Forest Fires Prevention Act, 1917, empowers the Forestry Branch to remove hazards from these localities. Surrounding many new settlements there exists enormous quantities of slash and undergrowth which should be cleared away, otherwise the danger from fire is very great, especially during a dry period. The clearing and burning of such hazards should be done during favorable weather.

In addition to the patrol or ranger system and the various preventive measures outlined, new methods of detecting and reporting fires are now being developed. The common method of detection developed during the past decade has been through the erection of lookout towers, so placed that large areas are under observation from these points. Where possible these lookout towers are connected up with sources of assistance by telephone.

Some experiments at fire detection by aeroplane have been made, and it is possible that the air service will revolutionize the work of protection from forest fires. The great problem, however, is to reach and extinguish such fires before they get beyond control.

Mechanical appliances have been developed to assist in fire fighting, and the Ontario Forestry Branch has installed a number of outfits in connection with this branch of the work. On some of the larger lakes power boats with pumps and hose