

administrative methods. There are, of course many differences in detail; but the similarities are more remarkable than the differences. The most important policy, now common to all provinces, is that of retaining ownership of forest lands while disposing of standing timber under license, lease, or timber sale. The only exception to this rule occurs when forested lands are considered to be of agricultural quality and are sold or otherwise transferred to the private ownership of settlers.

No attempt will be made here to go into details of administration which differ from province to province and from time to time. Instead, we will review briefly the different kinds of work that all the forest services have to do, and discuss in general terms how they are done.

### Forest Protection

The most urgent duty of any provincial forest administration is that of providing protection against forest fires. Canada's forests are, for the most part, easy to set on fire, especially in dry seasons, and the destruction caused by fires in the past has been enormous.

Carelessness with camp fires and smoking materials, and improper burning of slash for land-clearing purposes, are still far too common in Canada; and lightning also is responsible for many outbreaks. About 6,000 forest fires are reported each year, and about 5,000 of these are known to be caused by human agencies. This situation means that the forest services must make large expenditures and employ many men to prevent fires from starting and to put out fires that do occur.

In a provincial administration fire protection activities may be supervised directly by the chief forester or by a senior officer specially appointed for the purpose. In Quebec the Forest Protection Service is independent of the Forest Service, and has its own chief.\* Field work is controlled from District Offices in provinces where they exist, or by district fire rangers. Sub-divisions of districts are looked after by fire rangers, who may be assisted by look-out men and patrolmen. The former act as observers on look-out towers and report the appearance of smoke to a central office by telephone or radio. The latter carry out regular patrols along roads or waterways and warn travellers against carelessness with fire, as well as suppressing or reporting fires that break out. Special crews are organized to construct improvements needed for protection purposes, such as roads, trails, telephone lines, look-out towers, and ranger cabins. Usually these crews are kept on duty throughout the fire season, and are used as stand-by fire-fighting crews.

When fires occur that cannot be promptly suppressed by the local staff, temporary fire-fighting crews are organized from employees of lumber camps, farmers, and any other available source. In many districts all fit men (excepting clergymen and doctors) are required by law to help put out forest fires if called upon by the ranger.

\* Newfoundland appoints a Chief Fire Warden who maintains a fire patrol under his direction in co-operation with the Pulp and Paper companies. He is responsible only for fires on Crown lands and along the railway rights of way.