

examined by the Forest Branch. During the past few years 28,400 square miles have been set aside permanently for forest purposes. Provincial parks include 8,134 square miles. The present practice is to sell cutting rights for a stated period by public competition but licences to cut, which are renewable annually in perpetuity, have been granted for a large proportion of the accessible timber. The royalties are adjusted periodically on the basis of prevailing industrial conditions. About 15,000 square miles of timber-land are privately owned.

Subsection 2.—Forest Fire Protection.

The protection of forests from fire is undoubtedly the most urgent and most important part of the work of the different agencies administering forest lands in Canada. Except for the forests of the National Parks, the Forest Experiment Stations, and the Northwest Territories and Yukon, which remain under Dominion control, the administration of forest lands now rests with the provinces. Up to the end of the fire season of 1930, the Forest Service of the former Dominion Department of the Interior was responsible for fire protection in the prairie provinces of Manitoba, Saskatchewan, Alberta, and in the Railway Belt of British Columbia. However, by reason of the transfer of natural resources from Dominion to provincial control, their administration now rests with the provinces concerned.

Each of the Provincial Governments, except that of Prince Edward Island, maintains a fire protection organization co-operating with owners and licensees for the protection of all timbered areas, the cost being in part distributed or covered by special taxes on timber-lands. In each province, with the exception just mentioned, provincial legislation regulates the use of fire for clearing and other legitimate purposes, and provides for close seasons during dangerous periods. An interesting development in this connection in the Province of Quebec is the organization of a number of co-operative protective associations among lessees of timber-limits. These associations have their own staffs which co-operate with those of the Board of Railway Commissioners and the Provincial Government. The latter contributes money grants and also pays for the protection of vacant Crown lands lying within the area of the associations' activities.

In the matter of forest fire protection along railway lines, the provincial services are assisted by the Dominion Railway Act administered by the Board of Railway Commissioners. This Act gives to that body wide powers relating to fire protection along railway lines under its jurisdiction in Canada. Certain officers of the various forest authorities are appointed *ex officio* officers of the Board of Railway Commissioners. These officers co-operate with the railway fire-ranging staffs employed by the various railway companies, the compulsory control of all lines coming under the jurisdiction of the Board being one of the requirements of the Dominion Railway Act.

One of the most important single developments of recent years in forest fire protection has been the use of aircraft for the detection and suppression of incipient forest fires. Where lakes are numerous, flying boats can be used for detection and for the transportation of fire fighters and their equipment to fires in remote areas. Specially constructed aircraft equipped with wireless are employed on forest fire-protection operations; these enable the observer to report the location of a fire as soon as it has been detected. As a general rule, aircraft are used in the more remote districts, while lookout towers, connected by telephone lines or equipped with wireless, are established in the more settled and more travelled forest areas. While these agencies have to a large extent supplanted the old canoe, horseback, and foot