Railway Fire Protection.

By Clyde Leavitt, Chief Fire Inspector, Board of Railway Commissioners for Canada, and Forester, Commission of Conservation.

It is well recognized in theory that railways should themselves be required to take such measures as may be necessary to safeguard public and private property from destruction by fires due to railway operation. This theory has been translated into practice to a far greater degree in Canada than elsewhere on this continent.

It is also becoming recognized by the more progressive railway officials that the extension of the Governmental powers of regulation to cover matters of fire protection is not as a matter of fact a hardship upon the companies, so long as only reasonable requirements are made, but that, on the contrary, such regulation merely makes a necessity of what would in any event be dictated by good business policy, having due regard to the best permanent welfare of the railway companies themselves. A distinguishing characteristic of the modern progressive railway official is his regard for the future interest of his company, in contradistinction to the old-time railroad man, whose sole thought was in so many cases for the present, regardless of the future.

The prevention of railway fires means greatly reduced litigation and damage claims and, inversely, tends toward a much more friendly feeling on the part of the general public toward the companies. It means also decreased loss of the company's property and increased attractiveness of the line from the tourist point of view, thus conducing toward greater revenues. Forest growth in proximity to the track also means in the long run greater supplies at lower prices, of the tremendous quantities of wood material necessary for ties and other uses in connection with railway operation. It means also that instead of barren wastes producing no revenue, large non-agricultural sections of the

country will produce successive woodcrops forever, thus maintaining numerous settlements along the line and constituting a perpetual source of business and therefore of freight and passenger revenue to the railway.

At the end of June, 1912, the total length of railways operating in Canada was over 27,000 miles, leaving the Dominion in the unique position of having the largest railway mileage per capita of population of any country in the world, despite the rapid peopling of the western provinces, during the past ten years. At the same time there were approximately 7,000 additional miles of line actually under construction. A very large proportion of this 34,000 miles of line is subject to the Board of Railway Commissioners.

The powers granted to and exercised by the Railway Commission as to fire protective measures have been gradually modified and extended, culminating May 22, 1912, in the issuance of Order 16570, covering all phases of railway fire protective work. The essential requirements of this Order are as follows :—

(First.) The use of fire-protective appliances on coal-burning locomotives, calculated to prevent so far as possible the escape of live sparks or stack and fire-box. cinders from These appliances to be inspected at least once each week by railway em-Frequent check inspections ployees. are also made by the inspectors of the Operating Department of the Railway Commission. The best modern appliances are prescribed, and experience shows that the frequent inspections made by the railways themselves result in the early discovery and rectification of most of the defects in netting mesh or other appliances. In this way the occurrence of fires is very largely prevented, though