

to the careful clearing and keeping clean of the right-of-way. In addition, however, the forest is kept clear of dead material, and on each side of the railway a path is kept cleared even of leaves and grass, and the surface is broken up so as to provide a fire-break for ground fires.

It will be necessary to clear the dead timber from lands outside the right-of-way in Canada if safety is to be assured, and when a permanent policy of forest reserves has been established the public interest will make it profitable to do so. Where the railway lines run through reserves, as in the Rocky Mountains Park, steps are being taken to carry out such work. With the vast

The burning of old ties along the right-of-way in a dangerous season is a frequent source of trouble and should be covered by regulation so that the burning should not be done in a time of danger. Most of the railways are regulating this better now than they have in the past, but it is still a not infrequent cause of damage. Fires starting from such a cause would, however, be considered as caused by negligence and would render the company subject to action for damages under the common law.

### Locomotive Equipment.

Sparks from the locomotives are the most frequent cause of fires along

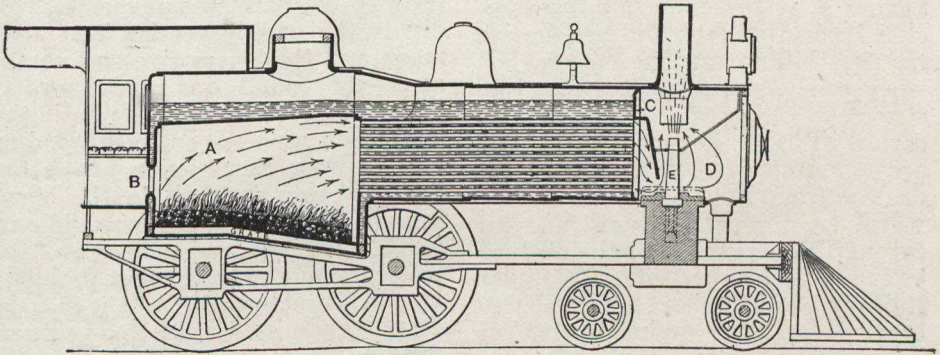


FIG. 2.

Longitudinal section of Locomotive. (A, fire-box; B, cab; C, front head of boiler; D, smoke-box or front-end; E, pipe from which exhaust steam escapes. Baffle-plate may be seen just below C and behind E.)

stretches of forest land along railways in Canada and our uncertain forest policy it is futile to advocate the general adoption of such a plan.

There should be no confusion as to the position in regard to the railway right-of-way. The present right-of-way of usually one hundred feet is sufficient for forest purposes, if it is sufficient for railway purposes, and nothing better can be done than to bring the green timber up to the edge of the right-of-way, but the right-of-way and a considerable space on either side of the right-of-way should be thoroughly cleared of dead timber and combustible material.

the railways. These may be caused by the use of inferior fuel. Wood or lignite coal will, with any screen or device, almost certainly throw fire from the smoke-stack, and it is in the newer districts back in the bush that railway companies are most likely to use such fuel. The regulations of the Dominion Railway Commission provide that no railway company subject to the legislative authority of the Parliament of Canada shall burn lignite coal on its locomotive engines as fuel for transportation purposes. Lignite coal is defined as including all varieties of coal the properties of which are intermediate between