

forest floor does not permit the water to escape in such volume or at such speed as to enable it to wash soil particles into the stream. Water running rapidly from burned exposed soil cover carries large quantities of silt with it to the streams.

The water from denuded areas will come down to the streams at least twice as fast as the water from forest areas. In that case it has 64 times the silt carrying and eroding power. A reservoir on a stream leading from a denuded area would therefore receive annually many times the quantity of silt that would be carried into a reservoir on a stream with a forested catchment basin.

It is quoted in the report of the Commissioner of Irrigation for 1895, that 'should the forests be destroyed, the streams, irrigation systems and crops would meet a similar fate.'

The Forest will Produce a Revenue.

There are approximately 8,244 square miles within the watershed known as the east slope of the Rockies. The maintenance of a forest cover on this area will not entail an expense, but will afford the only revenue which can be secured from land that is unfit for farming or ranching. If no more profitable crop than mining props is produced and these are sold at a stumpage of $\frac{1}{2}$ cent per foot, the prevailing price in the Crow's Nest Pass to-day, the revenue to the government will be for each acre \$24 every 60 years. The east slope will be no exception to the world-wide experience, that forests under business management pay a permanent and substantial profit.

HOW FOREST MANAGEMENT MAY BEGIN.

FIRE PROTECTION.

The greatest menace to the forest on the eastern slope is fire. There is always great danger that succeeding fires will destroy the mature timber and the young forest and convert valuable land into a waste area.

Fires come from the Canadian Pacific Railway, settlers clearing land and carelessness by irresponsible foreign miners.

The fire protective system now in force is as efficient as it can be made under present conditions. The chief fire ranger, whose territory covers all Southern Alberta and whose duty includes forest ranging as well as fire ranging, has established a system of patrol during the dry season and has co-operated with Hon. Peter McLaren to secure efficient protection of the timber. The only point upon which this scheme could be improved would be the appointment of some person to take charge of the fire protection in this district, who could be on the ground all the time and give all his attention to the supervision of the work. The increasing development of mines, prospects and settlement on the eastern slope constantly render this step more necessary; and the increasing value of timber makes the strengthening of the fire protective force advisable.

There is good telephone connection between the danger points; the coal companies and the lumber companies are always ready to call out their men to fight fires all that is needed is organization and sincere effort on the part of some official in authority who can spend most of his time in the district. The Mounted Police have men stationed at Crow's Nest, Coleman, Blairmore, Lillooet and Frank; if they should receive instructions to co-operate with the official in charge of the territory they would be of great service in general patrol, and in emphasizing observance of the law by initiating a few prosecutions.

The greater number of the fires come from the railroad. The fire rangers on the right of way should be given authority to examine the engines, to see if they are complying with the law, and should be taught how to make such an examination.