

Every contract contains a clause requiring that all merchantable timber be removed. The principle of these timber sales is that the Government shall receive full value of the timber, and that the ground shall be left in the best possible shape for another timber crop.

*By Mr. Thoburn:*

Q. What do you mean by building a "fire-line" around it?—A. On the coast, if the logging operator will put a trail around the logging slash, in a good many locations we let it go, because if then a fire does happen to start in, the fire warden can quickly get in to any part of the tract, and can fight the fire advantageously.

Q. It is a road, then?—A. It is not nearly so good as a road, and not so expensive; it is a rough trail eight or ten feet wide.

*By Mr. Paul:*

Q. On what contract do you sell the timber?—A. I have here a sample contract, which can appear at the end of the printed report of these proceedings.

The quantity, quality and value of the timber is ascertained by a careful cruise. The logging cost is estimated, and the value of the timber to the Government is estimated in the same manner as a private timber holder estimates the value of stumpage by subtracting the logging cost and fair logging profit from the value of the logs at the mill. This stumpage value is adopted as the upset price.

The provisions in the contract covering clean logging are designed to prevent waste of timber. No logger is required to take out material on which he loses money, but all loggers are required to cut low stumps, leave no merchantable material in tops, fell trees up-hill and take out all logs. The work of the best loggers in the district is a guide to the standard adopted by the Forest Branch, due allowance being made for defects in the timber and the character of the logging ground.

*By Mr. Thoburn:*

Q. How small do you allow them to cut timber?—A. Every place where we have had any timber sales up to the present time we have required them to cut clean, taking off everything that is merchantable. That is not the same kind of forestry that they practise in Europe, or that they can practise in some of the eastern regions of America, both Canada and the United States; but in British Columbia the fire hazard is great, and the only way we can get fire protection, particularly in the heavy coast forests, where practically all our timber sales have been located, is by having the slash all burned. Labour is high. There is a large quantity of timber left in the woods; we know that if we get the logger to cut it clean, take everything off that is merchantable, and burn the slash, we will get a new forest of some kind. On the coast it would be Douglas fir; in the interior lodgepole pine.

No advantage would be gained by leaving valuable trees standing for seed purposes on the tracts now logged over under timber sale. As it happens, sufficient defective non-merchantable trees are left to supply seed. Further, it is doubtful if, in the cases of which I speak, seed trees are necessary, as investigations have shown that in the western states, where they have been studying the question of re-forestation very carefully for about ten years, that the younger trees which come up do not come from the seeds which fall after the logging operations are completed, but they come from seeds in the ground before the logging operation was started; that has been our experience. If we log clean in almost any timber type in British Columbia and burn the brush clean after it is logged, we will get a first-class stand of young trees at a minimum expense and at a minimum fire risk.

The question of cost must always be considered carefully. When the logger is required to leave a proportion of merchantable timber for seed purposes the logging cost is inevitably increased. Any increase in logging cost is, under the practise of