

location ticket is transmitted to them as soon as issued by the Crown Lands Department. They select the lots themselves, which they get each father of twelve children to apply for, and it is needless to say that they choose only the most richly wooded lots, without concerning themselves in the least about their adaptability to farming purposes.

One of these organizations has presently before the Crown Lands Department applications for over 70 lots of about 7000 acres of woodland; if these are granted at \$30 each, these 70 lots will cost the speculator \$2,100, and he will easily sell the timber on them for \$20,000 or \$25,000. That is to say that, with the aid of this law, which is intended to favor the progress of colonization, speculation has found means to practically revive the regime of the great land owners, which did so much harm to settlement in the Eastern townships.

RECOMMENDATIONS.

The recommendations of the Commission are in part as follows:

DIVISION OF THE LANDS.—The first measure necessary is the division of the public domain into settlement lands and merchantable timber lands. Let us include in the first category only the lands susceptible of profitable cultivation and let us leave the other in the peaceful and exclusive possession of those who work them for the timber. Then there will be no more antagonistic interests on the same property and each will know exactly the nature and extent of his rights.

PREFERENCE TO THE LICENSE-HOLDER.—To make this system practicable, safeguard the interests of the province and effectually put an end to the speculation in timber, a clause must be inserted in the location ticket stipulating that the holder shall be bound to give, for the sale of his wood, the preference to the holder of the license in which the lot is contained. There can be no reasonable objection to this clause on the part of the settler in good faith, since it takes from him absolutely nothing and causes him absolutely no loss. It is only the speculators, the traffickers in lots, the interloping traders, who might have anything to say against it; but for these, there should be no mercy; they are the plague of colonization, as well as of the timber trade carried on regularly and under legitimate conditions.

AUTOMATIC CANCELLATION.—Automatic cancellation will complete this reform and put an end to a host of frauds which do incalculable harm to serious colonization. The clamors of the negligent or the speculators are accepted as well founded complaints, and people, inclined to take up lots to clear them, frightened, diverted by these false outcries, relinquish the idea. The law must decree that, on establishment of the fact by affidavit of the Crown Lands agent or of an officer named for that purpose that the conditions, in whole or in part, of a location ticket have not been fulfilled, the holder of such ticket shall lose all his right to the lot, which shall revert to the Crown domain and be at once entered among the available lots in the agent's books.

IMMEDIATE REGISTRATION OF TRANSFERS.—The law does not prescribe any delay for registration of transfers of lots under location ticket. This is a want which it is important to supply, inasmuch as it gives rise to numberless frauds. The speculators take advantage of it to hold, with the help of pre-noms or unknowing accomplices, large numbers of lots; they keep in their own possession the transfers which they obtain, in order to guard against cancellation under the regulation limiting the number of acres of land which may be possessed by the same person. An article should be added to the law providing that every transfer of a lot under location ticket shall be transmitted to the Crown Lands Department within thirty days from its date, under pain of nullity, and that so long as this transfer has not been sent in, the lot shall remain the property and in possession of the vendor. We would be disposed even to recommend the imposition of a fine or a penalty for any infraction of this regulation on the part of the transferee. Lastly, it should be enacted that any person other than the holder of the location-ticket or the holder of the regularly registered transfer of the lot, making or causing to be made merchantable timber on a lot which is not in his name in the books of the agency or of the Crown Lands Department, shall be liable to a fine or to confiscation of the timber thus

made, to the benefit of the Crown. Though they may appear a little severe, these measures are absolutely necessary to put an end to speculation in and plundering of the public lands on the pretence of colonization.

To protect the settler and the public revenue article 1342 should be amended and it should be enacted that any settler who makes or sells timber cut on his lot and does not send to the department before the 30th April the prescribed affidavit shall be ipso facto debarred of the right to claim the crediting or the refund of the stumpage dues.

Sworn reports, showing from whom the wood was bought, on what lots it was cut and where it was delivered, should also be required from saw mill owners, dealers in pulpwood and purchasers of ties. This is required from license holders, who are operating legitimately; why should it not also be required from speculators and interlopers, who are operating illegitimately? With the aid of such reports, it would be easy to protect the settlers and to let them get the benefit of the stumpage held back on the price of their timber.

LOTS OF FATHERS OF TWELVE CHILDREN.—The neglect to enforce the provisions of this law has given rise to frands, the number of which is daily increasing. In the Eastern townships, chiefly, this law has become one of the favorite weapons of the speculators. To remedy this, it is essential in the first place to pitilessly refuse to grant any lot on which there is merchantable timber, as prescribed by the law, and to add article 1267 the following provisions:

"The sale or alienation, otherwise than by donation inter vivos or by testamentary disposition, of a lot granted to a father or mother of twelve children or the sale of the privilege of cutting the timber thereon, entails the forfeiture of the grant, together with the confiscation of the lot to the benefit of the Crown."

FIRES FOR LAND CLEARING.—These are the most to be feared, the most frequent and the greatest occasion of damage to the forest. With a little organization and good will on the part of settlers, however, it would be possible to considerably lessen the dangers arising from them. Article 1345 of the Revised Statutes permits in a general way, for clearing purposes, burning at all times except between the 15th June and 15th September. Now, apart from the winter months, these three prohibited months are the least dangerous. The verdure at the foot of the trees prevents the fire from spreading, just as that of the foliage renders the latter harder to catch fire, especially in the hard woods. At that period the ferns, so inflammable before and after, constitute real "cut-fires," the rains are more frequent and the winds less strong, in fine everything contributes to lessen the danger by fire except in the pineries. The most dangerous season is the interval comprised between the 15th April and the 15th June. At that period as soon as the snow has disappeared, a few days of fine weather suffice to render extremely inflammable the rotten wood, the moss, the shrubs, and, above all, the ferns. A spark is enough to start a fire, which in a few hours passes beyond control. This is the danger time par excellence, the time when the fire-rangers should concentrate their watchfulness over the localities where they know that the settlers are land-clearing, especially when these clearings are in the immediate vicinity of a pine forest.

THE PROHIBITED FIRE SEASON.—The time during which it is dangerous to start fires in the vicinity of the forest varies so much according to climatic conditions, that it is impossible to practically fix it by law. In a same region, the snow disappears more quickly from the hills and the high ground than from the low ground; it disappears also more quickly from the deciduous woods into which the sun early penetrates than from the spruce woods, whose close, thick foliage prevents the solar rays from reaching the soil. The mountain slopes are also more sensitive to the sun's action than the level lands. If the temperature is wet, and the weather rainy in the beginning of spring, the danger of fire is hardly to be feared. But it is just the contrary in a dry spring such as we had last year. It seems practically impossible to determine by law the period during which fires may be safely started in choppings and the matter should be left to the discretion of the fire-ranger, who, being on the spot and knowing the cir-

cumstances, would give permits to do so at the proper and safe time.

DIAMETER OF PULP WOOD.—According to the admission of experts black spruce is the best wood for pulp-making. This spruce attains only exceptionally more than eight or nine inches in diameter on the stump at thirty inches above the soil. To subject this wood to the rule applicable to the other kinds of spruce, white and grey, would be simply to consign it to an inevitable loss, since in reaching its maturity it would dry up and perish before attaining the diameter of 11 inches at the stump prescribed for the white and grey spruce. It was absolutely necessary therefore to allow a less diameter to permit its being utilized and turned to account for the revenue and for industry. There are localities, however, and notably at Lake St. John, where the best arable lands are covered with black spruce. In these cases it seems to us that it would not be fair to the settlers and assuredly to the public interest to not allow the license holders to cut black spruce trees of less than eight inches in diameter at the stump. Slight as it may appear, this change would assure to the settlers enough timber for building purposes.

DIAMETER OF CEDAR.—The regulations permit the license-holders to cut cedar trees of nine inches diameter at the stump. This is unquestionably too small. When the cedar of nine inches at the stump has been taken off, there remains for the settler nothing in the way of building timber and very little for fencing wood. The diameter for the license holders should be raised to twelve inches.

AT WHAT HEIGHT SHOULD THE DIAMETER BE TAKEN.—Formerly trees were felled with the axe and the cutting in this way was hardly possible at less than two or three feet from the ground. Within several years, this practice has been almost everywhere abandoned and the felling is done with the saw, which allows of the trees being cut at twelve or even six inches from the soil. In this way and without violating the letter of the regulations, the license-holder can remove all the timber fit for use on a lot, especially the white spruce, the yellow birch, and the cedar, and leave practically nothing for the settler. It would be advisable to clearly specify in the regulations that the prescribed diameter means the diameter at 24 inches from the ground.

RECOVERING SUNKEN LOGS.

Diving for saw logs is a new industry to be engaged in at Clear Lake, Mich., next summer by Messrs. J.W. McCaffrey and A. J. Boyer, of Union City, and Henry Dodge, of Cairo. They have just secured the title to the land on which this lake is located by purchase. It was the property formerly owned by Frank Thompson, now of Detroit, who conducted large lumbering operations on this lake 20 years ago. About 1,400 logs of the best timber are in shallow water, and it is estimated that at least 400,000 feet can be recovered by employing divers in the deeper parts. Most of the logs are clear white pine, and as they are water cured, a top-notch price is assured for the lucky owners.

FORESTRY AT THE ONTARIO AGRICULTURAL COLLEGE.

The Ontario Agricultural College is branching out in every department of agricultural education. Mr. C. A. Zavitz has been appointed to look after a plot of land which has been set apart for forestry near the MacDonald Institute building. Some thirty thousand seedlings will be planted, principally Norway spruce, white pine, white ash, basswood and sugar maple. These young trees will be ready for distribution among the farmers in the spring of 1905 and 1906. Mr. Zavitz will also attend to the distribution.

LUMBER DEMAND IN AUSTRALIA.

Mr. J. S. Larke, Canadian Trade Commissioner, Sydney, Australia, in his last report to the Department of Trade and Commerce, Ottawa, says: "Last year nearly fifteen million dollars were expended on buildings in Sydney. The building trade is a little quieter just now, though there are some large warehouses in course of construction. The timber market is somewhat upset by the rapid fall in prices on the west coast, accentuated by a decline in freights also."