

and the process of chopping and clearing mows it down as surely and steadily if not quite so rapidly as a reaper the field of grain. Now, in most cases, by selection and good judgment, the bush may be saved, and enough timber for all useful purposes still obtained. In a very interesting and comprehensive letter to the Commissioners, the Hon. George W. Allan, of Toronto, alludes to this particular matter.

He says:—
 "And here let me remark in passing, that, in this country, where tree growth is so rapid, if every farmer who has not been so recklessly imprudent as to leave himself without a few acres of bush on his farm, would only manage his bit of woodland, be it twenty, fifteen, or even ten acres only, carefully and systematically, it would keep him, and his children after him, supplied with fuel, and to a great extent with timber for fencing and repairs on the farm.

"I have known instances of pieces of woodland of from twenty to twenty-five acres in extent, which have been thus systematically cut now for twenty years and upwards; no tree under a certain diameter was allowed to be touched; all the young growth of beech, oak, maple, elm, etc., was carefully protected; and the result has been that these comparatively small reserves have continued to furnish, under the same management, sufficient firewood for the wants of their owners, as well as much useful material for repairing fence, gates, and out-buildings.

"On many farms in Ontario, however, not an acre of wood is now left, and on many more, so that planting would seem to be the only means of providing—at least in country districts—a supply of firewood for the future, unless our farmers are to burn coal, and become dependent in a great measure for their fuel on a foreign country."

By selecting (1) such trees as are in demand for mechanical purposes, and (2) those of an inferior class, for fuel; carefully cleaning up all mere rubbish, and encouraging the development of seedlings and second growth by judicious thinning, the timber crop will be literally perennial. Where too, it is necessary to clear, belts, or clumps of second growth, may be profitably left to form shelter belts in the first instance, and timber-yielding plantations in due course. In the course of his address to the Commissioners, Prof Buckland mentioned a little incident within his experience, bearing on the last suggestion. He said:—

"The question of raising trees from second growth is a practical one, and I am aware of at least one instance in which the plan was successful. About thirty years ago I was staying a few days with a farmer in Prince Edward County, who was clearing up eight or ten acres of bush and burning it. Three or four acres were covered with second growth maple, and I persuaded him to leave that for the purposes of a sugar bush. He did so, and now it is one of the most beautiful little sugar bushes you can find in Ontario. This, of course, could only be done where the maple is the predominant wood."

Puget Sound Fir-Trees.

The fir-tree growths of Puget Sound form one of the wonders of the American world. They average 200 feet in height, and some specimens have been cut that measured 320 feet in length and twelve feet in diameter at the base, with a straight and well-proportioned log length of ninety feet to the first limb. The cedar trees are in like proportion and are most valuable for wooden wares of all kinds, while the firs are the best for spar and ship timber yet found in any country. There are few nations that do not use them in ship-building. One fourth the wealth of San Francisco was culled from the firs of Puget Sound while the Government slept, and to-day all the principal steam mill owners who saw and prepare for market from 100 to 200,000 feet a day to each mill—and there are thirty or more mills—are residents of San Francisco, where they invest their profits, to the great injury of residents of the Sound. There is, apparently, no exhaustion of the timber, and a century will possibly elapse before Puget Sound forests will be cleared of their immense resources of varied tree growths.

ONTARIO WOODLANDS.

THE UNCLEARED LANDS IN THE OLDER PARTS OF ONTARIO.

Among other information placed before the public for the first time by the report of the Agricultural Commission is a mass of statistics relating to the state of the land in every township in the Province. From these figures we are able to learn exactly how far the work of deforesting the country has actually gone, and how much further it is likely to proceed before a stable ratio between the cleared and forest land is reached. We have compiled, from the digest by counties of the township reports, a table showing the total area of each county and the area of cleared land therein, and have calculated the percentage of land which is still under forest. Bearing in mind the frequent outcry about the destruction of our woodlands, it may be anticipated that the first thing to strike the reader will be the great number of acres still uncleared, even in such old and densely settled countries as those of York and Middlesex.

ACREAGE OF ONTARIO COUNTIES, NUMBER OF CLEARED ACRES, AND PERCENTAGE OF UNCLEARED LANDS.

	Total Acreage.	Acreage Cleared.	Per cent. Uncleared.
Brant.....	223,215	170,311	34
Bruce.....	700,836	331,330	57
Carleton, not including Marlboro'.....	605,515	218,303	50
Durham.....	366,336	248,153	32
Northumberland.....	442,302	231,450	34
Elgin.....	441,830	237,421	46
Essex.....	422,646	147,010	65
Frontenac.....	682,312	190,024	70
Grey.....	1,171,350	602,004	52
Haldimand.....	570,596	183,418	33
Halliburton.....	not known	23,418	
Hilton.....	223,030	104,075	27
Hastings.....	885,411	35,943	58
Huron.....	506,823	440,333	45
Kent, excluding Camden.....	533,063	217,064	60
Lambton.....	665,902	216,044	60
Lanark, excluding Elmslie.....	000,764	222,782	64
Leeds and Grenville.....	741,451	443,700	40
Lennox.....	361,096	172,033	52
Addington, excluding Elmhurst.....	321,030	10,305	97
Lincoln.....	191,450	133,045	31
Middlesex.....	763,692	478,470	37
Norfolk.....	389,418	203,769	48
Ontario.....	450,030	229,147	45
Oxford.....	470,375	315,587	33
Peel.....	229,234	232,857	20
Perth.....	515,007	278,132	47
Peterborough, excluding Burleigh.....	476,334	259,334	46
Prescott.....	233,848	95,857	60
Prince Edward.....	229,772	107,024	27
Renfrew.....	685,404	244,836	70
Simcoe, including part of Muskoka.....	1,320,327	469,565	65
Dundas.....	247,498	120,731	49
Stormont.....	251,000	115,474	55
Glenora.....	267,445	133,030	53
Victoria, including Laxton, Digby, and Longford.....	772,590	230,766	70
Waterloo.....	305,250	229,517	28
Welland.....	228,940	141,418	38
Wellington, excluding Nichol and East Garafraxa.....	773,250	439,894	43
Wentworth.....	272,190	197,586	27
York.....	540,371	352,513	28

It will be observed that in only two counties—Peel and Brant—is there less than 26 per cent of the land still in forest. Of counties still possessing more than a quarter and less than a third of bush land there are nine—Durham, Haldimand, Halton, Lincoln, Oxford, Prince Edward, Waterloo, Wentworth, and York. In twelve counties the bush land is more than one-third and less than one-half of the total area, namely, in Northumberland, Elgin, Huron, Leeds and Grenville, Middlesex, Norfolk, Ontario, Perth, Peterborough, Dundas, Welland, and Wellington. The following counties have more than a half and less than three-quarters of their lands still in forest:—Bruce, Carleton, Essex, Frontenac, Grey, Hastings, Kent, Lambton, Lanark, Lennox, Prescott, Stormont, Glengarry, Victoria. And the following have more than three-quarters of their forests still standing:—Addington, Renfrew.

We have some recollection that a French Commission on forestry reported, after a careful investigation, that one-sixth of the whole face of the country shall be clothed in forests in order to secure favorable conditions for agriculture. Bearing on the same point we may mention the fact that any farmer of a hundred acres of good land in Ontario who has ten acres in bush considers that an ample allowance.

According to this, none of our counties have as yet approached alarmingly near the point of danger, and it is to be hoped that in those counties which are nearest exhaustion, the reckless waste of the early days will not be practiced hereafter. The trouble with our farmers is that the forests which are still standing are not by any means evenly distributed. There are hundreds of farms so stripped of wood that the owners have to purchase fuel. The condition of these farms ought to be, and probably will be, a sufficiently impressive example to deter the owners of woodlands from further lavishing of their resources.—*Globe*.

THE INDUSTRIAL CONDITION OF CANADA.

A couple of years ago our Canadian neighbors, tired of the industrial stagnation, adopted a protective tariff in the hope of developing home industries. A return to a free policy is strenuously insisted upon by many Canadians, whose idea of national economy never rises above the sophistry of "buying in the cheapest market."

In an argument for the policy now under trial the *Industrial World* of Montreal describes a very hopeful state of things as its first fruits, and points out the obvious conditions of the new prosperity:—

"Suppose, for instance, a factory is opened in Montreal, giving employment to 1,000 hands, what does this mean? One thousand factory employees will represent a population of at least 2,500. What would the closing of this factory and consequent expiration of these craftsmen mean? A loss of 1,000 to 2,500? Much more. These artisans require boots, shoes hats, caps, meat, bread, roots, vegetables, medicine, clothing, houses, wood, etc., almost *ad infinitum*, and likewise each of the new or additional industries which they inaugurate to add to in all its various forms, require the same things. So that each thousand artisans probably adds, in one way or other, 5,000 additional to the population. Have our free trade friends ever considered this? What emptied one-fifth of the houses of Montreal under the late regime? The closing of the factories. What staked the growth of the city during that dark era? The impediments which the tariff raised to the establishment of new industries and the development of diversified labor. All the artisans employed in the factories of the metropolis wanted homes. It required carpenters, joiners, bricklayers, painters, plasterers, roffers, glaziers, workmen of all kinds to erect these houses. It required vast quantities of agricultural produce to fill the stomachs of the various craftsmen which the tariff furnished with a purchasing power. And although to-day the same clouds float over us, the same sun, moon, and stars light the heavens by day and night, in the language of Webster. How altered! and how changed! Of 2,000 notes falling due on the 3rd of February in the Bank of Montreal, not one was protested!! Among the thousands of vacant houses in Montreal in '78, not an empty place is to be found, and the demand is for hundreds more. The market is flooded with money for investment. Canada fours are worth more than Canada sixes were formerly. Our almshouses, except for the old and infirm, are empty, and the soup kitchen is now a matter of history. The railways are unable to carry the freight offered to them, and the demand for increased accommodation is met by the employment of thousands of able hands, working night and day to meet the public wants! Never was there an era promising greater prosperity for Canada. Bank stocks have appreciated 37 1/2 per cent, and all securities have become correspondingly improved in value, and the prospect of a £7,000,000 surplus for the financial year ending July 1st staves us in the face to terrify us into a free trade policy! If it is a bad policy to swamp horses while crossing the stream, we think it would be rather imprudent to risk a change from prosperity, under protection, to one of promised increased (?) aggrandizement under free trade."—*Scientific American*.

Effects of Advertising.

Mr. Alsop, of the Steam Cabinet Works, Broadmead, Bristol, has just executed a furnishing order for South Africa. The sender admitted that he had only heard of Mr. Alsop through the columns of an English newspaper.

SUPERIOR QUALITY OF SAW LOGS.

A "Traveller" writes to the *Pembroke Observer* as follows:—

"In passing round by the Schyan the other day I could not help remarking the quantity and quality of saw logs manufactured by the Messrs. Bronson & Weston on that stream, and never was I more surprised than when observing those logs which are large and of the very best quality, being of the finest yellow pine. As a great many of them are taken out by jobbers and culled on the river, it is a good sign to see so little red chalk, which indicates culls, and deals out destruction to the jobbers. I opine it did not cost the company much this year for crayons. The reason my attention was more particularly drawn to these logs was that the limits from which they were taken belonged to the late John Egan. After his death their working was carried on by trustees, they were pronounced by the agent to be of little value, and were sold by public sale and knocked down to the company for a mere trifle. Alas for men's judgment in these days. I have been informed that the Messrs. Bronson & Weston will have about one hundred thousand logs taken from their Schyan limits this winter, part of which will go down by Black River. I did not see all their logs but was told they were all of A 1 class. I can safely say the Schyan river will produce more first-class logs in proportion to quantity than any tributary of the Ottawa. I must not forget in passing, that Mr. Richard Fraser, of Pembroke, has a few thousand logs near the mouth of the Schyan which are well worthy the attention of intending purchasers, as I understand they are for sale, they are a fair average and good quality. On my arriving at the mouth of Schyan I could not help taking notice of the improvement being made on Capt. Thibeau's screw steamer, the *Walter B.* He is getting her renovated and enlarging the first and second deck. This will have ample room to accommodate the travelling public the ensuing summer and autumn. There is an appearance of prosperity over all parts of this section. I see Wm. Leroy's wharf is well filled with wood, I believe for the use of the Union Forwarding Company's steamers; it looks encouraging to see all these preparations making for the next summer's business. With a railroad running along side, it is surprising to see all the teams that are drawing up loading for the Upper Ottawa. I could not help thinking there must be something wrong. Do they charge too much for freight on the Canada Central? All the better for the farmers and hotel-keepers along the road."

THE EASTERN TOWNSHIPS.

Lumbering interests in the Eastern Townships of Quebec are this winter very brisk. Especially is this the case along the line of the South Eastern R.R., which, with its several branch lines, has done much to open up sections of the country containing large quantities of spruce and hemlock standing timber, which have heretofore been unavailable. A Montreal correspondent who has just spent several days in the township of Roxton, reports lumbering operations in that vicinity as being very actively prosecuted. There are large tracts of land there covered with hemlock, which has heretofore been cut solely for the sake of the bark for tanning purposes. Thousands of trees lay rotting in the bush, but since the completion of the railway between Sutton Junction and Sorel, which affords direct access to the American market, all the available timber lands have been bought up. Messrs. Prouty & Miller, a considerable lumbering firm, of Newport, Vermont, have built a fine mill at Roxton Falls; Messrs. Cosgrain & Lee, who hold some 4,000 acres of timber land, expect to get their new steam mill running in a week or so, and have already sold all their cut hemlock to a North Troy, N.Y., concern. Three or four other mills are in course of erection in the same neighborhood, and the general business activity prevailing is in marked contrast with the state of affairs which existed a few years back, when railway facilities were wanting.—*Monetary Times*.

A PROMINENT lumberman in Burlington has had his coat of arms painted on the panels of his carriage with the Latin motto "Vidi," which by interpretation is "I saw."