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FORESTRY AND ARBORICULTURE.

BRING THE FOURTH CHAPTER OF THE REPORT OF THE ONTARIO AGRICULTURAL COMMISSION.

In dealing with the large and very attractive subject of fruit-growing, the Commissioners have had occasion to use only the language of encouragement, but, in connection with the topic they have now to discuss, they have to utter words of warning, perhaps even to give expression to some alarm, for, from the day that the first pioneer settler entered Upper Canada until now, a process destructive to our forest wealth has been rashly, recklessly, wastefully, and it may even be said wantonly, going on.

No one seems to have stopped to inquire into the relations which, particularly in such a climate, the trees of the forest bore to the operations of the husbandman, affected the rain and snow fall, protected the crops, or served any other purpose than to supply fence rails or cordwood.

If the farmer who entered the country fifty or sixty years ago were told he might have secured for himself at this moment, in timber alone, an amount equal to the value of his farm at the highest given price, and that he could have obtained this without sensibly diminishing the area under cultivation, he might be meretricious. But there are, nevertheless, many districts where such an assertion would hold good, where a fortune which might have been saved has been split up into snake fences or sent whirling in clouds through the stove pipe.

Meantime, while men have toiled early and late to shelter themselves and their families—and let us hope their cattle too—in comfortable buildings, and to provide the necessaries of life, they have deprived the "staff of life" of its natural and necessary shelter, and soon, time and again, perish before their very eyes, the wheat and clover on which have depended much of their prosperity.

Small blame, it is true, attaches to the pioneer in a wooded country if he does cut and slash at all obstructions somewhat ruthlessly. The early settlers in Upper Canada often found themselves in circumstances almost desperate. They had neither roads, nor markets for timber if they preserved it, and, surrounded by what seemed to them an illimitable extent of forest, they naturally took small account of what might be the state of things in the days of their grandchildren or their great-grandchildren. But it is surprising to see that, even with the bare facts staring them in the face, our farmers who are practically to-day the owners of the remaining timbered lands of the Provinces in all the settled districts, are in a condition of profound lethargy or innocent unconsciousness of the dangers they invite or the losses they incur.

Still there is time even yet on many farms in not a few of the counties, for waste to be prevented, danger averted, and money saved, if men will only shake off the apathy they have

hitherto exhibited, and see the true state of affairs in the light of self-interest, not to say self preservation.

How little idea of providing against the continual depletion of the forests many of them have, was well illustrated by an incident that occurred during one of the early sittings of the Commissioners. The witness before the Commissioners was a gentleman enjoying beyond most the confidence of his brother agriculturists an admirable specimen of an intelligent and substantial yeoman. To the question, whether anything had been done in this district in the direction of replanting forest trees, he replied in an almost surprised manner.

"We do not think that we have reached the miserable condition which requires us to face that difficulty yet. We have more bush than there is in many parts of the West."

But it happened that, just before, this same gentleman had told the Commissioners, that his crop of fall wheat had been saved from winter killing, by what? *by the accidental shelter afforded it, not by his own, but by his neighbor's bush.* But for this the merest chance one of the best farmers in Ontario would not in all probability have had enough fall wheat to pay for the harvesting. And yet he almost scornfully repudiated the idea of planting a tree.

Nor is this all. Not only have the farmers of Ontario destroyed property of fabulous value, in the clearing process; not only have they denuded their lands of necessary protection, not only have they dried up their streams, and left dry ditches in many places to mark where once existed a valuable water power, but they have been, and still are, going on very fast with the destruction of their supply of fuel. Instances have come within the observation of the Commissioners, where men who took up bush land thirty years ago, have so thriftlessly managed their timber, that to-day they have used the last stick and are actually buying cordwood.

But there is hope yet. Ontario is not the only country that has had to face the situation in this respect, and is to-day, thanks to her prodigious forest wealth, better off than many. If some choice woods are nearly exhausted, many others of high marketable value still remain. There are, in the settled counties of Ontario, and altogether exclusive of free grant territory, containing every variety of timber used for economical purposes, forests as extensive in area as some not unimportant European principalities. The woods of Ontario consist principally of the elm, oak, ash, hickory, butternut, maple, beech, chestnut, poplar, birch, cherry, basswood, hemlock, cedar, tamarack, cotton wood, ironwood, whitewood or tulip tree, willow where it has not been wholly destroyed the walnut; and in addition to this the pines, balsams and spruces, in great variety. And all these have now a recognized place in the markets of the world. It is not the

duty or purpose of the Commissioners to discuss the relations of the Government to the lumberman, or of the latter to the settler. They look at this question solely as it affects the interests of the agriculturist, and through him the country, and while, as may be pointed out, the cultivation of the pine and other coniferous trees is to be encouraged on various grounds, it is with the deciduous (generally known as hardwood) trees they are most largely concerned, so far as relates to the question of timber supply or cultivation.

It is proposed, therefore, now to notice—

1. The management on cleared farms of the bush, usually from five to twenty acres in extent.
2. The economic uses of the several varieties of timber.
3. The market value of various woods.
4. The age of trees maturing, and conditions in which they are merchantable.
5. Tree planting including choice of trees, methods, and cost.
6. The construction of wind-breaks or shelter belts in fields and orchards.
7. The planting of trees and shrubs for ornamental purposes.

Coppices.

The subject of coppices, or the cultivation of young timber from the stumps of a former growth, is discussed in Dr. F. B. Hough's very able report of 1877 to the United States Bureau of Agriculture. Some of the information given by Dr. Hough under this head will be of practical interest in the present connection. Dr. Hough says—

"The coppice is a growth of timber of various deciduous kinds, from the stumps of a former growth, and is usually cut before maturity, at intervals of from ten to forty years, according to circumstances and the uses to which the product is to be applied.

"This mode of cultivation is in great favor for the growth of firewood, and the smaller wood used in various industries, and is the means by which tanning materials are often produced from the oak, where reliance is necessarily had upon this means for supplies.

"The coppice of short period produces hop-poles, and the stakes and vine props so much used in vine growing countries, and in many parts of this country may be able to supply, with but little care beyond protection, the fencing material and other woods required for farm purposes. It is destined to be in future of great importance in the growing of poplars for paper-making.

"The trees that sprout best from the stock are the ashes, elms, oaks, poplars, cottonwoods, willows, chestnut, linden, mountain ash, maples, sycamore, birches, alders, and hazel. The beech will reproduce but slightly, except in very favourable conditions, and the conifers not at

all, with the single exception of the California redwood.

"Whatever may be the effect upon the durability of the timber by cutting at particular seasons, we have, in case of coppice growth, no alternative choice, and must cut in winter, and, by preference, toward the approach of warm weather but before the sap starts, as at this time alone will the stumps be in best condition for sending up a vigorous crop of young shoots. The months of February, March, and first part of April are generally best for this labor.

"In cutting, with the view of reproduction, the stumps should be left low, and the top sloping and smooth, so as not to admit water. It is sometimes the practice to dress off the stump in a convex form with an adze, taking especial care not to separate the bark from the trunk. It is along this line of union, between the wood and the bark, that the young shoots start, and if separated they will not sprout.

"In the cutting of coppice woods it is often the practice to leave a certain number of choice trees of the more valuable kinds to grow to full maturity, and thus acquire a much greater relative value than if cut small. These reserves may be kept through two or three periods or 'revolutions.' They influence the young growth by their cover and shade, and when properly distributed may be, on the whole, beneficial rather than injurious to the future crop. They should not cover more than a twentieth, or at most a sixteenth, part of the whole surface. As some stocks will be weakened by repeated cutting, care should be taken to secure new roots from time to time, and one means of doing this is to bend down the tops of some of the sprouts and bury them partly in the soil, by which means new roots will in some species form, and when fairly established they may be separated from the stock. Such sprouts should be held down by hooked stakes, and the tops kept in position by a piece of sod."

It will be seen from the foregoing how important a source of wood supply and of income too in many cases, the gradual and judicious removal of the larger trees, and the careful and intelligent cultivation of a second growth may become. If in clearing up land a strip or belt of timber were left on the north and west sides of every ten or twenty acre lot, and intelligently handled in the way suggested, not only would a very excellent wind break be maintained, but the farm would yield two crops annually in place of one, with very little loss of space and with, probably, a gain rather than a loss in the value of the grain crop.

Preservation of Standing Timber on Farms.

The usual treatment of the standing timber on a farm, unless cleared to be used as a grove, or where it consists wholly of sugar maples, is unscientific and wasteful to the last degree. Its final disappearance is looked upon as inevitable,

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.

County	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.....	441,890	237,421	46
Essex.....	422,646	147,010	66
Frontenac.....	682,312	190,024	70
Grey.....	1,171,350	602,004	52
Haldimand.....	270,596	183,418	33
Halliburton.....	not known	23,418	
Hilton.....	223,030	104,075	27
Hastings.....	885,411	35,943	58
Huron.....	705,823	440,333	45
Kent, excluding Camden.....	533,063	217,064	60
Lambton.....	665,902	216,044	60
Lanark, excluding Elmslie.....	600,764	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.....	339,418	203,769	49
Ontario.....	450,030	229,147	45
Oxford.....	470,375	315,587	33
Peel.....	229,234	232,887	20
Perth.....	515,007	278,132	47
Peterborough, excluding Burleigh.....	476,334	259,334	46
Prescott.....	233,848	95,887	60
Prince Edward.....	229,772	107,024	27
Renfrew.....	685,404	244,836	79
Simcoe, including part of Muskoka.....	1,320,327	469,565	65
Dundas.....	247,493	120,731	49
Stormont.....	251,000	115,474	55
Glenagarry.....	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, Glenagarry, 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 37½ 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."

THE FUEL OF THE FUTURE.

THE DISCOVERY AGAIN CLAIMED WHAT IS SAID ABOUT ATOMIZED PETROLEUM AND SUPER HEATED STEAM

Reports current among engineers and others interested for some months past were only the prelude to disclosures which must excite the industrial world. The main fact is the production of a new fuel, from the combination of petroleum and steam, from which intense heat is instantly generated, under perfect control, and at an expense so insignificant, compared with coal, as to promise results of an importance not easily exaggerated. This is the conviction of all present-day who witnessed its practical operation at the smelting works of G. D. Mackey, in Grand street, Jersey City, where he has had liquid fuel in use for a considerable time, but meanwhile avoiding observation. The explanation of the methods and principles was volunteered by Colonel John C. Rose, of the Pennsylvania Railroad Company. But the simplicity of the arrangement was not the least remarkable of the whole. To produce combustion, nothing more is necessary than

BY MEANS OF AN ATOMIZER

to admit dry steam and crude petroleum, one a common inch pipe being used for this purpose, one for steam, the other for oil, with cocks to regulate the flow. The junction is made within six inches of a perforated brick retort, which the nozzle enters, and instantly, on a match being applied, the whole interior of the furnace (an ordinary reverberatory smelting furnace) becomes intensely heated, so much so that all the exposed surfaces may be easily fused. If applied to a steam boiler, on a locomotive, or on shipboard, it is only necessary to place the retorts, made of fire clay, on the grate bars, thus protecting the boiler plates from injury. Said Colonel Rose: "We can now run a locomotive from New York to Philadelphia for four dollars instead of an expense of some \$25, as at present, with coal." More than this, the fuel creates no gas, smoke, ashes or cinders—in corroboration of which statement the spectators were asked to observe the interior of the furnace and the opening of the flue above the roof. Mr. Mackey reminded the spectators of what liquid fuel might do for the elevated railways, and of the revolution to be effected in steam navigation. Said he: "We have the system in perfect working in a boiler at the Jersey City waterworks in Belleville, and have demonstrated more than what we have said to be true." "Why," said he, "we have only to make a retort full of holes, where the gas is generated, and placing it on the grate bars of any furnace nothing else is required but to turn on the steam and oil, or as for that matter, coal tar or the refuse of an oil refinery will do just as well, and one fireman can tend to a dozen furnaces just as easy as one, for all he has to do is to keep up steam." He affirmed that the new motive power could be used at

ONE-EIGHTH THE COST OF COAL.

Indeed, the cost was so trifling for ordinary purposes as to be too small for easy calculation. The gentlemen present engaged in a general conversation, expressing themselves in reference to the great changes to take place in running engines and machinery, all seeming to be firm in the faith that great results are in the immediate future.

Mr. McCrae, superintendent of the motive power on the Pennsylvania railroad, said immediately: "This is just the thing we want and have been long trying for." The only difficulty heretofore has been in the combustion—in the mode of applying the fuel. On the New Jersey Midland railroad, not long ago, they thought they had the right thing beyond a doubt, and went so far as to organize a company, with \$2,000,000, to apply it, but the plan did not work. Several of the steamship lines, too, have tried it, with no better success. The atomizing process, however, with super-heated steam in combination, is accepted as the true solution of the difficulty. It is observed that the dryer the steam the greater is the power, and so the present purpose is to turn the pipes supplying steam directly through the furnace, so that the combination with the oil shall take place after the steam has been heated to the highest degree attainable. As yet the mechanism employed

is of a very crude character, but is susceptible of a perfection which shall set at rest all questions concerning the feasibility of a practical application. *N.Y. Commercial Advertiser.*

THE CHICAGO LUMBER TRADE.

At the recent meeting of the lumber dealers of Chicago, B. L. Anderson gave the following resume of the lumber trade of that city during the past 20 years, with some sensible deductions therefrom. —

"Lumbermen of 1881, what is our duty at this time? To rightly understand and appreciate the true condition of our trade. To do this, facts must be ascertained, and after we have made the correct deductions therefrom, it is our duty to outline and follow the policy that shall most surely remunerate us for the investment of our time and capital. Facts and figures, I am aware, are rather dry food so soon after lunch; but it is for our present and prospective good to look at a few of them. From 1861 to 1865 the average receipts were 425,000,000 feet, and the average stocks on hand Jan. 1, 86,000,000; from '66 to '70, the average receipts were 331,000,000, and the stocks 215,000,000: from '71 to '75, the receipts averaged 1,110,000,000, and the stocks 306,000,000, and from 1876 to 1880, the receipts were 1,263,000,000, and the stocks 394,000,000. In 1860, the total receipts were 262,000,000 feet, and the stock on hand Jan. 1, 1861, 36½ per cent., or 94,000,000 feet; in '65 the receipts were 647,000,000, and the stock on hand Jan. 1, '66, 137,000,000, or 21½ per cent.; in 1870, the receipts were 1,018,000,000, and the stock at the end of the year, 298,000,000, being 34 per cent. of the receipts; in 1875 the receipts were 1,147,000,000, the stock 352,000,000, and the percentage 30½; and in 1880, the receipts were 1,564,000,000, the stock at the close 497,000,000, and the percentage 32. Prior to 1876, there were no monthly accounts taken of the stock in the yards, and I cannot, therefore, show the average percentage during the year, before that time. In 1876, however, we find that, with receipts aggregating 1,039,000,000 feet, the average stocks, as shown by the inventories taken on the first of each month, were 303,000,000, or 30 per cent., while the stock on hand Jan. 1, was 352,000,000, or 33½ per cent. of the receipts; in '77 the receipts were 1,065,000,000, the average monthly stocks 305,000,000, or 30 per cent., and the stock Jan. 1, 369,000,000 or 34½ per cent.; in '78, the receipts were 1,180,000,000, the monthly stocks 333,000,000, or 28½ per cent., and the amount on hand Jan. 1, 385,000,000, or 32½ per cent. of the receipts; in '79, the receipts were 1,468,000,000, the average stocks 407,000,000, or 27½ per cent., and the 1st of January stock 410,000,000, or 28 per cent., and in 1880, with receipts of 1,564,000,000, the monthly average of stock was 404,000,000, or 25 per cent., and the amount on hand Jan. 1, 451,000,000, or 28½ per cent. of the total received.

"To appreciate correctly these figures, there is one very important element to be borne in mind; namely, that previous to 1876 considerably more than 50 per cent. of our receipts were shipped green from our yards and railroad docks, whilst now, 25 per cent. of green shipments would be a very liberal amount to estimate. My own opinion, however, is that from 15 to 20 per cent. of green shipments is more nearly the correct amount, which fact, of itself, necessitates a largely increased stock of dry lumber, over and above what the yards have earned hitherto. Hence, in view of the receipts of 1880 being 1,564,000,000, I estimate that we ought to have had on hand on Jan. 1, a stock of not less than 600,000,000, taking into consideration the largely increased demand of 1880 and the prospective demand for 1881; instead of which, all we had on hand Jan. 1 was 497,000,000—fully 20 per cent. less than we ought to have had. Hence arises the unwisdom of any alarm about the stock on hand being excessive.

"The fact is, if we want to hold the trade we have acquired, and increase it, we must of necessity have a largely increased stock of dry lumber all the time on hand for shipping to points where we come into direct competition for the trade of those points. Which of these policies we shall pursue will determine whether we are as wise in our day and generation as our worthy predecessors were in theirs." — *Lumberman's Gazette.*

LOSSES BY FOREST FIRES.

We some time ago stated that the Superintendent of the Census had placed all that relates to Forestry, including lumbering, and whatever concerns forestry as a source of national wealth, in the hands of Prof. C. S. Sargent, of the Arnold Arboretum of Harvard University. How thorough his investigations would be, those who know him need not be told. In a general way we may say that his own journeys to the Rocky Mountains and to the Pacific, as far as the forests of Washington territory, his employing of local agents, and the sending of experts to important localities, have been but a part of his labors. To show how every ramification of the subject is provided for, we may refer to the circulars sent out to collect information as to forest fires. We often see articles in the journals lamenting the destruction of our forests by the demand for railroad ties and fuel; the wanton waste in clearing for farms, and the rapid destruction by lumbermen. It is believed, by those best able to judge, that the destruction of our forests by fires, is greater than from all other causes together. It is also known that such fires are annually increasing in number. It is believed that these fires are mainly due from avoidable causes, and that proper legislation is needed to prevent this useless waste of national wealth. For proper measures of prevention to be taken, it is an important point to know just the extent of the evil, and this it is proposed to learn by means of the Tenth Census. Prof. Sargent has prepared a circular to be addressed to the town officers in all parts of the country where forest fires may occur. This blank form, which can be readily filled, asks for the number of acres, or square miles of forests destroyed by fire in 1880, the value of the property thus destroyed, causes generally producing such fires, and any suggestions relating to the general subject of forest fires and how they may be prevented or diminished. — *American Agriculturist.*

FOREST PRESERVATION.

The Brantford *Telegram* says that much has been written lately in reference to the preservation of our forests, but still the reckless waste of fire and axe goes on. Notwithstanding the statutory laws for the prevention of forest fires, there is no effectual check to prevent our valuable forests from being willfully or accidentally swept away by fire during the dry summer months. The *Orillia Packet*, referring to the subject, calls attention to the scarcity of firewood in some of the older settled townships, which, heavily wooded a few years ago, now, with the exception of their hilly condition and line fences, look like prairie. Farmers within the radius of twenty miles from cities and large towns are commencing to burn coal, so that the question of fuel supply is a serious one, and will have to be faced within a few years. But apart from this the absence of forests will produce a deleterious effect upon our climate—creating, as the experience of other countries shows, atmospheric changes, anything but beneficial either to the crops or conducive to the comforts of living. We should see to it that at least our tracts of woodlands, which represent thousands of dollars, are not mercilessly left to the incendiary or criminally careless sportsman, but that Forest Rangers be appointed to take charge of our back forests and other non-resident wooded lands, and see to it that in case of fire the flames will not be allowed to devastate, without opposition, vast tracts of country, leaving nothing but a ruined waste. Probably the best plan would be for the Local and Dominion Governments to appoint a joint commission to investigate the subject, and submit proper regulations on Forestry in general.

Got Up in the Very Best Style of the Art.

We have to thank the publishers, Messrs. Toker & Co., of the Peterborough Review, for a specimen number of THE CANADA LUMBERMAN, hitherto published at Toronto, by Mr. Alex. Elegg. It is got up in the very best style of the art, and speaks most favorably for the enterprise of its new proprietors. Published semi-monthly, at \$2 a year; 16 pages. The only work of its kind published in the Dominion. In our next we purpose giving extracts from its "Introductory" articles, which will more fully explain its mission. — *Millbrook Messenger.*

TIMBER RESOURCES.

The forestry division of the Department of Agriculture, national Government, has been engaged in attempting to ascertain the timber resources of the country, in connection with the tenth United States census. The work in the States of Michigan, Wisconsin and Minnesota, has been under the supervision of H. C. Putman, of Eau Claire, Wis., whose researches have so far progressed that an approximate estimate of the amount of standing pine in the three States has been reached. From what we learn of the method pursued in obtaining the figures it is judged that the result will be a nearer approach to a knowledge of the actual timber resources of the country than has ever before been obtained. To be sure, there has been a reliance upon estimates, but they have been more closely scanned and compared and have gone more into particulars. The results secured in the three States named are these:

Minnesota will be credited in the census reports with containing 6,150,000,000 feet of standing pine, distributed as follows: Rainy Lake and tributaries, 350,000,000; Red River and tributaries, 600,000,000; St. Louis and Choquet rivers, 1,500,000,000; Mississippi and tributaries, 2,900,000,000; North Shore of Lake Superior, 800,000,000.

The State of Wisconsin is credited with 40,500,000,000 feet, distributed in districts as follows: St. Croix river and south shore of Lake Superior, 6,000,000,000; Chippewa and tributaries, 12,500,000,000; Wisconsin river and tributaries, 11,000,000,000; Lake Superior district east of range 11, 2,000,000,000; east of the Wisconsin river, 9,000,000,000.

Michigan is credited with having 35,000,000,000 feet of standing pine—6,000,000,000 in the upper peninsula and 29,000,000,000 in the lower peninsula.

The aggregate in the three States is 81,650,000,000 feet.

This is much less than the amount of pine supposed to be standing in these States, but there is no means of ascertaining whether the figures given include only the bodies of pine which in the present condition of lumbering operations are regarded as profitable to lumber, omitting lands which have been culled but which still contain a considerable amount of pine which will eventually be cut, when the decadence of timber shall sufficiently advance the price of lumber.

There is quite a probability that there will be a goodly quantity of pine cut in the three States after the reports show the 81,650,000,000 feet of the census bureau's finding have been manufactured, which will be in about 11 years at the present rate of cutting.

At the present rate of cutting the pine in Michigan will last 10 years, if the figures above given are proper representatives of the amount now standing. — *Lumberman's Gazette.*

Important Function to Fulfill.

THE CANADA LUMBERMAN.—We have received from Messrs. Toker & Co., Peterborough, a copy of this semi-monthly published by them. It is a sixteen page quarto, and its typographical appearance and make-up are exceedingly neat, such as one would expect the REVIEW establishment to turn out. The prospectus announces that the LUMBERMAN will be a "purely trade organ and entirely non-political." "All information of value to the trade at large will be diligently collected and matters of interest to them will be discussed and advocated." And judging by the number before us this promise will be faithfully carried out. This journal as the guarantor of one of the most extensive interests of the Dominion has a most important function to fulfill and the promise of the initial numbers is a good indication that this important duty will not suffer at the hands of THE CANADA LUMBERMAN. The single number before us appears for its varied and interesting contents to be worth the price of subscription (\$2.00) for a year to anyone to whose interests they appertain. We give it our best wishes for success. — *Napanee Standard.*

THERE are now six European countries who refuse to allow the importation of pork from the United States, viz.: Russia, Italy, Spain, Portugal, Greece and France.

Chips.

In Chicago 3,111 men find employment in the lumber yards, and 2,761 men and 265 boys in the planing mills.

During January and February, 9,797,043 feet of lumber were exported from New York, the West Indies taking fully half of it.

A cord of second growth, dry oak wood, by actual test, weighs 2,948 pounds, and a load of green, of the same kind, 4,820 pounds.

It is said that it will crowd the mills of Orange and Beaumont, Texas, to fully meet the demands even of the railroads this year.

The Muskoka Herald says. The Muskoka Slide, Dam and Boom Company will build a new dam at the falls at Baysville during this season. The company's engineer was taking levels and making measurements for the work last week.

Mr. ARTHUR S. PIERSON, of Harvard, N.Y., has patented a jointer for circular saws, so constructed that it can be readily adjusted to operate on saws of different diameters, and which will bring all the teeth to a uniform length. It is an ingenious, simple, and effective device.

The Flos Lumber Company have erected a new saw and shingle mill of large capacity, not far from the Midland Railway station at Orillia, and already two boilers and machinery are forward, the intention being to have the mill ready for work at an early day on the large stock of logs cut during the winter.

The official figures for 1880 show that the exports of the United States have increased to the enormous amount of \$889,649,840, exceeding 1879 by \$124,490,015. The imports have increased largely, yet there still remains an excess of exports over imports of \$192,846,407—or nearly two hundred million dollars for 1880.

A DESPATCH announces that a Minneapolis firm has secured a large order from the Syndicate for lumber for the construction of the Canadian Pacific Railway freight-sheds and depots on the line. It is stated also that 600,000 ties, manufactured on the eastern section of the C.P.R., have been bought at reasonable figures.

The Muskoka Herald says Mr. T. Halliday is at work with a gang of men improving the navigation (logviation) at Mathiaso Falls, by building a pier opposite the one built by the Government four years ago. The present improvement is being done by the Muskoka Slide, Dam and Boom Company, and, if properly carried out will be a great boom to river drivers.

The Fredericton Reporter says the people of Quebec are beginning to wake up to the great waste of the hemlock trees, in procuring bark for exportation. The hemlock tree will be a thing of the past in New Brunswick before long, unless some restriction is made. The suggestion to increase the stumpage tax on bark cut for other than local tanning or extract purposes, is a good one.

The Tracadie Star says there has been, or will have been by spring, nearly 8,000,000 feet of logs cut on Tracadie this winter. It is principally for R. A. & J. Stewart, and will be sawed at the Tracadie Mills, and thence conveyed to Chatham in woodboats. Mr. J. A. McDonald has now put out 3,500,000 feet on the South Branch of Tracadie, has 13 teams and 90 men in, and works for Stewart.

The Ottawa Free Press says that Capt. W. O. McKay informs us that Desothe Galpaux, Joseph Galpaux, Orphir Philon, and Hermidas Desmarchis, four men in the employ of Mr. A. McLean, cut 155 pieces of square timber on the Upper Ottawa in six days. The timber averaged 54 feet. This is claimed to be the biggest week's work ever performed by four men in the Ottawa Valley.

The Quebec Chronicle says the Canada Central Railroad is to blame for the failure of timber merchants to ship timber through to Quebec by rail. It says that line charges more than double the rates of the G.M.O. & O. Railway, and that Mr. Chapleau has been endeavoring at Ottawa to bring about such a reduction in the rates of the Canada Central as will enable the G.M.O. & O. Railway to assist in the development of this important traffic.

THE Bangor (Me.) Whip of the 2nd of March says, that at the annual meeting of the Penobscot Lumbering Association, held yesterday, the following officers were elected: President, W. B. Hayford; Clerk and Treasurer, Abram Moor. Directors, Charles G. Sterns; Joab W. Palmer, Eben Webster, John Morrison, John P. Webber and Jos M. Hodgekins. The rafting of the logs at the Penobscot boom for the coming season was bid off by Mr. John Ross at the rate of thirty cents.

A SCAPER in a lumber camp in Gladwin county was instructed to scale out both saps on certain logs. One of the kind was banked which the foreman thought ought to scale 500 feet. The scaler insisted, though, on following directions and scaled out the saps. Later he went around to the other end of the log and discovered it was hollow, and when last heard from he was sitting on a stump scratching his head, for after taking out the hole he wanted just 13 feet of having any log at all.

THE Renfrew Mercury says that on the limits lately sold by Messrs. Mackay & Smith, there has been cut this season one tree, five lengths of which (each 13 feet 6 inches long) measured one hundred and fifteen standards, and said to contain 23,000 feet of lumber. The smallest end of the smallest log measured 35 inches in diameter. From another tree, a piece of timber 44 feet long by 3 feet square was manufactured. The stump of this tree measured 18 feet in circumference. This limit is within a day's drive of Renfrew village.

THE Pembroke Observer says that Mr. P. Fitzpatrick, Mayor of Allumette Island, who has the contract of drawing a raft of timber, manufactured on the Coulonge by Bryson & Murtagh, for J. R. Booth, has caught up to the timber makers, and has now between one thousand four hundred and one thousand five hundred pieces conveyed from the bush and deposited on the ice. According to Mr. William Clarke, forest ranger, of Pontiac, the timber will average between sixty-five and seventy feet, and he says it is the best he has seen this winter. The distance which the timber had to be drawn varied from six to eight miles. It is now lying on the Coulonge river, some seven or eight miles above its junction with the Ottawa, and consequently about the same distance from Coulonge village. If the season permits, about seven hundred pieces will be manufactured and added to the timber already drawn.

It is believed that the railroad tie of the future will be cut from the beautiful catalpa tree. The Fort Scott, Texas and Gulf Railroad have planted 900 acres of young trees and the Iron Mountain railroad 100 acres, near Charleston, Mo. On the track bed of the latter company ties of this wood have lain in the muddy silt of the Mississippi for twelve years, and are still in a good state of preservation. They have outlasted two sets of white oak ties, and bid fair to survive the third. Fence posts in Indiana and Illinois are now sound after having been in service for forty, fifty and even seventy-five years. In the muddy regions about Cairo, where it is grown extensively, it is used as "corner stones" for the most substantial buildings. It is of an elastic nature, but not so soft and light as cottonwood. Dr. John A. Warder, President of the American Forestry Association, claims for the catalpa a durability and power of resistance to the influences of the elements possessed by no other wood. It is found in the Mississippi valley and on the shores of the tributaries of the great river. It bears a large white, highly perfumed flower, and grows quite rapidly.

Deserving of Liberal Support.

THE CANADA LUMBERMAN.—This journal, the first nine numbers of which were published in Toronto, has been purchased by Messrs. Toker & Co., proprietors of the Peterborough REVIEW. THE CANADA LUMBERMAN is the only paper published in Canada devoted to the interests of the lumber and timber industries of the Dominion, and being purely a trade publication, is deserving of a liberal support from those in whose interest it has been established. The first number issued by the new proprietors is before us, and is in every respect a credit to them. It is published semi-monthly at \$2 per annum.—*Belleville Intelligencer.*

THE DRY LUMBER QUESTION.

At the meeting of the Chicago lumber dealers on Saturday of last week, in response to a resolution of thanks, extended to Mr. T. W. Harvey, who officiated as the host, that gentleman made some very sensible remarks upon the relation of the Chicago lumber trade to that of the country at large. "Chicago," said Mr. Harvey, "makes prices for the entire western country, and the markets of the East are influenced by the action of the dealers of this city in fixing the value of lumber. The question of carrying larger stocks is one which must materially affect the prices of the future. If this market fixes its prices upon the basis of green or but partially seasoned lumber, as must inevitably be the case if the yards of the city do not carry stocks of sufficient extent to at all times insure a full assortment of dry, the markets at other points will be established upon the same basis. The extent of the trade which Chicago shall transact during the coming year, hinges largely upon this question. The total supply, of year 1879, amounted to 1,850,000,000 feet, of which, in round numbers, 1,160,000,000 feet was disposed of, and the close of the year found us with about 450,000,000 feet on hand. The stock of 1880 aggregated 2,000,000,000 feet, of which 1,500,000,000 feet was sold, and 500,000,000 feet remained on hand for commencing the business of the present year.

"Every indication now points to an increase of not less than 150,000,000 feet in the business of 1881, and we should prepare ourselves for handling not less than 2,250,000,000 feet, including the stock now on hand. This will admit of a disposition, during the season, of 1,650,000,000 feet, leaving on hand, at the close of the season, 600,000,000 feet. That this will not more than suffice for the wants of the trade, our present condition fully assures us. Entering upon the year with 500,000,000 feet, the first of July will find our dry stocks so far depleted as seriously to cripple our trade for the succeeding three months. We should have closed the last season with at least 100,000,000 feet more than we did, in order to keep ourselves in position to supply the prospective demand which is now indicated.

"And the trade is rapidly increasing. The rapid development of the western country admonishes us that if we would keep pace with it, we must enlarge our stocks. If we are called upon to receive such a vast amount as 1,750,000,000 feet during the coming season, and the prospect of the winter's logging assures us that we shall be, where shall we send the 1,650,000,000 feet which I claim we shall be able to dispose of? In answer to this, let me point you to the 10,000 miles of railroad now in course of construction, and call to mind the growth and increase of the towns and villages which are building up as a result of the wonderful era of prosperity which has dawned upon us. And if the country west of us will so largely increase its demands for lumber, what shall we say for Chicago? At no time in the past six years, have so many plans been supplied by the architects of this city for improvements as are now in hand.

"And all this means a demand for dry lumber. We cannot ship it green. The day when 10,000 feet could be loaded on a car and billed as 5,000, has gone by. Everything is weighed, and the lumber manufacturers and dealers of the whole country are in the same boat; all must submit to the weighing process. There may in the past have been a "buy" way, but that is out of the way for us and for a majority of dealers elsewhere. Pools have been formed; all the railroads of the country have become members of what is known as a weighing association, and the pool association has agreed to haul no lumber which has not passed over the scales of the weighing association. This does not apply simply to shipments from Chicago; it includes not only lumber, but everything else, not only here, but everywhere throughout the land.

"Let us, then, see how we are to be affected by it. The average stock of lumber in Chicago will weigh 3,200 pounds to the thousand feet. The average freight is 25 cents per 100 pounds. Dry lumber will average not over 2,500 pounds. If, then, we dry 700 pounds of water out of the lumber, we reduce the freight \$1.75 per thousand feet. Lumber weighing but 2,500 pounds is worth fully \$1.25 more in our yards than

lumber weighing 3,200. By carrying sufficient stock to enable us to season it, we add, therefore, \$3.00 per thousand to its value to us. Will not this pay? True, dock rents are high, but the increased value of our lumber will pay the difference of expense in this respect and still leave us a handsome margin, beside enabling us to fill the orders which reach us, with promptness. The manufacturers also must learn to carry a supply at their mills, and thus to share with us in the benefits of cheaper freight and a better price. Dry lumber is what we want, and dry lumber we must have, and we must make up our minds this very season to place ourselves in a position to at all times have it.—*Northwestern Lumberman.*

CANADIAN AND BRAZILIAN TRADE.

The ventilation of the proposed new trade between Canada and the Brazils has so far been in a dormant state as regards practical statistics for the guidance of our commercial and trading community. The data relative to this subject has been compulsorily held in abeyance awaiting the consummation of arrangements by Mr. Wm. Darley Bentley (the Brazilian Consul-General) who, since October last, has been vigorously engaged in England and Rio Janeiro conferring with financiers and shipowners for the bringing about of a company to conduct direct service between the two countries. We are enabled on good authority to state that that gentleman's negotiations have been successful, and a company has been formed in London, England, whereby a first-class line of steamships will, almost immediately, come into operation, commencing probably between Halifax and Rio, and performing a bi-monthly trade. The company's capital is stated at \$500,000, which, together with the respective subsidies of \$50,000 voted by the Canadian and Brazilian Governments, will enable the service to provide such comfort to passengers and freights as, in the past, has not been provided. The prospects of an increasing trade between the Dominion and the Brazils is encouraging to all parties interested; and at once opens up a new channel for shippers to consign marketable produce to more distant ports, where, probably, the field for requirements will enhance the value and more than fully repay the consignor for his speculation. On the other hand, we have exceptional transit offered for Brazilian produce imported into Canada, giving Brazilian exporters facilities for shipment of tropical goods such as sugar, coffee, cocoa, hides, etc., and various articles of farina indispensable in our markets. The specialties of exports to the Brazils include flour, furniture, coal, codfish, dry goods, all descriptions of canned goods (meat and fish), kerosene and petroleum oils, pine wood and lumber in every shape for building purposes. In fact, the interchange of commodities are so numerous that a glance at the import and export trade during the past two years between the United States and Brazil at once implies that similar transactions are adapted to Canadian and South American requirements. It is the company's intention to make one of the West India Islands (perhaps St. Thomas) a port to call en route—whereby their interests and the public convenience will be further developed. The rates proposed to be exercised by this service will be of such quotations as to render attractions to shippers, and provide opportunity for consignments of saleable articles to receive the attention of consignees at their destination. The necessity of this service between Canada and the Brazils has long been recognized, and now that it has arrived at the present satisfactory point for practical work, there is every reason to believe that its merits will be fully entertained by the travelling and commercial community, and ultimately establish such benefits as its promoters and Government supporters have so ably organized.—*Industrial World.*

Improvement on the Old Issue.

THE CANADA LUMBERMAN has changed hands, and is now published by Toker & Co., of the Peterborough REVIEW. The first number published by them, is before us and presents a very neat appearance, being quite an improvement on the old issue. It should receive the patronage of all interested in the lumber business. Terms \$2 per year.—*West Durham News.*

IMPORTS AND EXPORTS OF WOOD.

We have received, from the secretary of the treasury, a summary statement of the imports and exports, to and from the United States, for the year 1880, from which some general facts regarding the trade with foreign countries may be obtained. The value of imports of merchandise for the year, free of duty, amounted to \$206,583,347, of which the item of unmanufactured wood is stated at a valuation of \$3,229,333, an increase in this class of imports of \$943,518 over those of 1879. Of dutiable goods, the total imports of the year amounted to a valuation of \$490,222,522 an increase over 1879 of \$151,362,883. Of this amount, the following table exhibits the value of wood products on which duties were collected.

Articles	1880.	1879.
Furniture and manufactures of wood.....	\$1,325,397	\$1,010,162
Boards, plank, joist, etc.....	6,251,335	3,830,535
Shingles.....	153,435	65,363
Timber, sawed or hewed.....	14,435	3,043
Other timber.....	457,950	208,867
Total, dutiable lumber imp'ts.....	8,507,602	5,151,910
" non dutiable.....	3,229,333	2,257,815
Grand total.....	\$11,436,935	\$7,409,725

From the above table it appears that imports of the products of the forest increased in 1880, over the preceding year, to the extent of \$3,999,210, or but a fraction less than 54 per cent. But while importing to the extent of \$11,436,935 the exports of wood and its manufactures for the year amounted to \$17,333,844, against \$15,240,743 in 1879, or less than 14 per cent. increase. The following is a detailed statement of the exports included in these figures:

Articles	1880.	1879.
Boards, planks, joist, etc.....	\$4,300,429	\$4,042,444
Lath, palings, pickets, etc.....	12,363	13,048
Shingles.....	180,170	163,012
Box-shooks.....	193,865	127,562
Other shooks, staves and headings.....	3,490,523	3,565,935
Hogsheds and barrels, empty.....	263,485	257,845
All other lumber.....	1,053,370	643,330
Firewood.....	11,462	9,810
Telegraph and other poles.....	208,060	442,128
Logs, masts and other whole timber.....	671,048	637,179
Timber, sawed and hewed.....	2,592,077	1,742,622
All other timber.....	123,940	97,337
Household furniture.....	1,872,589	1,604,279
Woodenware.....	312,447	298,430
Other manufactures of wood.....	1,944,274	1,590,070
Total.....	\$17,333,844	\$15,240,743

The above includes only the exports of domestic wood products, and to this should be added the exports of foreign goods, imported and again exported, which were as follows. Duty was paid on everything except unmanufactured wood:

Articles	1880.	1879.
Wood, unmanufactured, free of duty.....	\$ 79,420	\$ 69,610
Furniture and manufactures of wood.....	65,833	52,430
Boards, plank, joist, etc.....	450,185	351,007
Shingles.....	3,438	1,098
Other lumber.....	5,270	513
Total of both classes.....	604,196	469,458
Exports of domestic goods.....	17,333,844	15,240,743
Grand total.....	\$17,938,040	\$15,707,201

At the end of the year, there remained in bond, manufactures of wood, boards, plank, joist, scantling, shingles, timber and other lumber, of the value of \$239,752, against a valuation of \$219,823 at the close of 1879. The lumber represented in the values given above, in the tables of domestic woods exported, comprising the items of boards, clapboards, plank, joist, scantling and deals, amounts to 279,931,000 feet; lath, palings, broom handles, curtain sticks and bed slats, 4,265,000 feet; shingles, 60,680,000; for box and other shooks, no details are given, sawed and hewed timber figures at 18,425,438 cubic feet, equal to 221,105,256 feet board measure, hogsheds and empty barrels are stated at 151,337, and firewood at 4,323 cords. The aggregate of the above items of lumber, timber, lath, etc., is 505,301,256 feet board measure, and adding to this the re-exports of foreign manufacture stated at 46,494,000 feet, we arrive at a grand total of exports for the year, of 551,795,256 feet, although 100,000,000 feet more would not exaggerate the extent of the articles of which the quantities are not enumerated.—North western Lumberman.

An English company offers to invest £220,000 in the Jarrah timber business if the South Australian Government will grant reasonable concessions. It is not probable that any definite answer will be given until after the next meeting of the Legislature.

HOW TO DESTROY THE BORER.

James W. Robinson, Esq., of Fremont, Ill., an ex president of the Illinois State Horticultural Society, gives the following mode of dealing with that destructive insect, the tree borer.

"The eggs are deposited in the bark of the tree, the beetle puncturing or splitting the bark of the tree upward or downward and a little sideways, the puncture looking very much as if made with an ordinary pocket knife. The eggs are usually injected into this puncture so deep as to be out of sight, but not always. On young and thin barked trees the eggs will be pushed in next to the wood; but in older and thicker barked trees they will only be through the hard outer bark and inner soft bark. As soon as the eggs begin to hatch, which is in a few days after being deposited, its enlargement causes the puncture to open, and thereby it is much easier detected. The young borer hatches out in the inner side of the egg, and eats but a circular piece the size of a half dime; and then starts off, boring upward at first, but sometimes sidewise or downward. At this stage of development it is easy to detect the young depredator by a few drops of di-colored juice of the tree exuding from the puncture and sticking on the bark. The larva usually bore down below the ground surface in the winter, and up again in summer, living in the larva state in the tree nearly two years; then boring out in the form of the beetle, ready to repeat their round again. The remedy I have successfully used is to keep the ground around the trunk of the trees clean and mellow, so that there will be no cracks or openings there for beetles to get in to lay their eggs in the tree, and so that the puncture where the eggs are laid or young beetles may be easily seen, and eggs or insects destroyed, which can be done while in the egg by merely pressing firmly on the puncture with a knife-blade (the cracking of the eggs can be heard distinctly), and, if hatched, by cutting away the dead bark over the cavity first eaten out and killing the young worm. The borers do not get into the wood much the first year and can be easily followed by a knife; but, if not taken out soon after hatching, they seriously injure, if not entirely kill the tree, especially when they run around just under the bark, as they sometimes do. Or, when several borers are in a small tree, they so injure it that it breaks over with the wind. If the ground is well cleared and patted down smooth around the tree about the last of June, the destroying of the eggs and young borers will be more certain. The trees should be examined twice or perhaps three times a year, if the borers are very numerous, in order that the first hatched may be killed before they do serious injury to the trees. August, September, and October are the months in which to destroy them. They seem to infest certain parts of the orchard from year to year, while others are comparatively exempt. Low grounds have been more infested with me than higher parts of the orchard. A man can usually examine and kill all eggs and borers in five hundred or more trees per day, if the ground has been properly prepared, and no work in any orchard has been so absolutely necessary." Ohio Farmer.

A Store of Useful Information

Messrs. Toker & Co., of the Peterborough REVIEW, have assumed the publication of THE CANADA LUMBERMAN. It is a sixteen page quarto, well and neatly printed, and will be devoted to the interest of the great lumbering industry of our country. The LUMBERMAN will advocate the establishment of a Bureau of Woods and Forests in connection with the Provincial Government. There is a store of useful and interesting matter in the first copy issued by Messrs. Toker & Co., and, judging from the success which has attended other publications with which these gentlemen have to do, we may safely predict success to the LUMBERMAN.—Brampton Consecrator.

The weather this month has been unfavorable for trade about Philadelphia, Pa., but there has been an activity of sales and inquiries very gratifying under the circumstances. All agree in predicting plenty of business in the near future for both city and country dealers. Prices are well maintained, and we do not think there will be any changes unless on seasoned lumber.

OUR TIMBER SUPPLY.

The *Montary Times* says. The question of the extent of the timber supply is relatively a more important one for Canada than for the States. What our remaining supply is, the means of estimating are much less accurate, and it would be well if in connection with the census of this year, special preparation had been made for getting reliable information on the subject. Alarmist stories are started, from time to time, that our timber supply is getting low; bush fires doing more to denude our forests than the axe of the lumberman. One writer tells us with horror that in removing the forests which protect us from the bleak winds of the Arctic Ocean, we are in danger of letting in eternal winter upon us. Precisely where fact ends and imagination begins, there is no means of knowing. It is, however, about time that an effort should be made to find out the truth. But this is not sufficient. It is essential that every available means be used to put a stop to wanton waste by means of fire. A beginning has been made by the Ontario Government, but the effort is merely tentative and the extent of the means made use of is already known to be insufficient. The forest literature of European countries, respecting which but very little is known here, would furnish many useful hints as to the best means of forest preservation. The subject deserves at the hands of the local governments which are largely interested, more special attention than it has hitherto received.

SHIPPING NOTES.

FREIGHT RATES—INSURANCE—SALOONS' YARNS—NOTES FROM VARIOUS PORTS.

There is no movement yet among vessel men in Toronto harbor in the way of making engagements. It is a certainty that shippers have offered \$1.25 per 1,000 on lumber from here to Oswego, but we have not heard of any vessel men having accepted a charter at that rate. On the contrary, they are asking 1.50. Both parties are lying off easily so far, as there is no hurry yet for two weeks or more. About grain rates there is an uncertainty. Shippers say they have been figuring and find that railway rates will leave them about even if they should pay the vessels 2c. from here to Kingston. This will be no better than the rate last year. Nothing can be done with vessel men on such a basis as that with lumber offering at \$1.25. Rates on Lake Michigan ports have not been settled exactly, but charters have been made which will give some idea of what may yet be. A prominent shipper in Chicago has determined not to pay more than 6c. on corn to Buffalo, but some agents say they will get 7c., and some vessel men are holding off for 8c. One schooner has been chartered at Milwaukee with corn to Buffalo at 7c., and another with wheat at 8c. Grain rates from Lake Michigan are expected to be higher than they were last year, but that circumstance will scarcely affect the rates out of Toronto harbor.

INSURANCE.

There is nothing doing of any consequence up to the present. The underwriters will not get fairly into business till the new book is out, or before April. All opinions point to the probability that rates will be higher this spring, at least that they will open higher. Negotiations are said to have brought out the views that premiums may be in cases one half to one per cent. higher than they were last year at the opening of navigation. There is no certainty that rates will be sustained at a higher figure, for it is pretty certain that insurance companies will be found outside of any pool combination who will offer better terms.

SALOONS' TALK.

There are no saloons in yet, but vessel captains are gathering round their usual places of rendezvous and exchanging views. These views cover the range of subjects that come up at this season. When the harbor will be open, whether they shall all stand out for "better terms" from shippers; what saloons' wages will be; and a strong current of yarns about how they did in wild encounters with ice of fabulous thickness in many past spring tides. It is pretty safe to say that the ice in Toronto harbor will not be out of the way much before the first of April, and it will not cause any rejuning among vessel men if it should be so. The captains all feel

pretty sure about getting good paying rates on lumber, and there are said to be plenty of freights just as soon as the vessels can move, so the vessel men are waiting their time with patient assurance. The rates of their vessels in the underwriters' book for 1881 will be looked for with interest by many who do not feel quite sure about the inspector's report. There is not much said yet about the saloons' wages, and it is not yet hinted what the demand will be. There was a good deal of grumbling last year about the rate paid to men before the mast, which was as much towards the close of the season as what was paid to the masters of vessels.

CANADIAN VESSELS AND AMERICAN FREIGHTS.

The Chicago *Tribune* has some observations on the operation of Clause 30 in the Washington Treaty relating to the carrying of American freights in Canadian bottoms. After reciting the regulation that Canadian vessels may carry freight from one American port destined to another American port, provided that a portion of such transit is overland in Canada and in bond, similar regulations being applicable to American vessels with British freights, the *Tribune* says that this agreement is fair enough, but the Canadian vessels get a large advantage from its operation, and gives the following figures in demonstration, showing the shipments in transit through Canada to American ports:

Articles	Colling.	God.	Port Col.	Sar.
	wool.	erich	borne.	niu.
Wheat, bush.....	76,485	.....	.....	.....
Corn, bush.....	1,722,064	288,553	206,017	253,669
Flour, brls.....	4,562	.....	.....	.....
Commeal, brls.....	3,100	.....	.....	.....
Oatmeal, brls.....	385	.....	.....	.....
Grass seed, bags.....	6,210	.....	.....	.....
Flax seed, bags.....	847	.....	.....	.....
Pork, brls.....	740	.....	.....	.....

Of this quantity American vessels carried 581,898 bushels of corn and 28,285 bushels of wheat, the Canadian vessels getting the other share. So Canadian vessels get over three-fourths of the entire eastern bound freight, which passes overland in Canada during its transit.—Globe.

The new lock and canal at the Sault Ste. Marie will be ready for use about July 7, 1881, with a depth of water at the present stage of sixteen feet. The river has been dredged to sixteen feet for forty miles southward from its head. Now that the final appropriation—\$150,000—for the completion of these improvements has been made by Congress, our shipping will have the use of the increased depth of water—sixteen feet throughout the entire channel between Lake Superior and Lake Huron, in 1881, excepting at two points—Lake George and the East Neebish rapids. The work in Lake George is under contract for completion in 1882. The improvement of the channel at the East Neebish rapids has been in the hands of the Government of the Dominion of Canada.

STEAMBOAT masters, mates, and engineers in the United States pay \$10 every spring for their certificates. There is a sum of \$400,000 to the credit of the Steamboat Inspection Service now, but fees are kept up.

The schooner *Wanderer*, lying at Toronto, has been sold to Captain John Spence of Saugeen, for \$3,000. She will go into small timber trade on Lake Huron.

British Timber Trade

Concerning the spring trade in Britain, the *London Timber Trade Journal* says: With regard to the timber trade, which has been a principal sufferer, it is not that we have had an unusually long winter on the contrary, we had very fine weather in December, but when winter really did come in January, it came so much in earnest that for nearly a whole fortnight it almost entirely shut up the timber trade and brought it to a standstill, from which it only rallied at intervals till last week, when it seemed to resume its normal course and return to its ancient habits. This interruption to the trade was not limited to an locality, it pervaded the whole kingdom, but it was chiefly exceptional in the south, where we are unaccustomed to such heavy snowfalls and to such late frosts as we had to contend with during all the latter part of January, and the timber trade suffered in proportion, so much that our reports from the province were all of one kind for awhile. The state of trade was everywhere torpid, and was rarely stimulated up as no trade at all anywhere.

OUR QUEBEC LETTER.

A QUIET SEASON - STOCKS WINTERING IN QUEBEC THE BROMBERG MILLS - THE PROPOSED SHIPMENT OF LUMBER BY RAIL THE NEW TIMBER DUES OF QUEBEC CONFERENCE BETWEEN THE LUMBERMEN AND THE GOVERNMENT.

QUEBEC, March 25th, 1881

In lumbermen's offices in this city, the present is the quietest season of the year. The accounts of last year's operations and shipments, and of stocks on hand are for the most part completed before the end of January. Contracts for next season's delivery have mostly been made weeks ago, and the chartering of vessels has hardly commenced. The stocks wintering here, as appears from the annual trade circulars of Messrs. J. Bell, Forsyth & Co., are mutually light, particularly those remaining in first hands.

The Montmorenci mills are working on full time night and day, the full yield for the season having been long ago disposed of. The figure paid for the season's cut of pine deals by Messrs. Bryant, Powis & Bryant, of London, has not yet transpired. It is believed in usually well informed circles to fully sustain recent quotations. The firm in question are opening an office in this city, and will certainly load twenty to thirty vessels here during the coming summer.

The shipment of lumber from Ottawa to Quebec, by rail instead of by water, has for some weeks past been engaging public attention here. The question has been opened by the recent connection made between the Canada Central, and Quebec, Montreal, Ottawa and Occidental Railways, and by the facilities offered in this port, where the terminus of the Q.M. O. & O. R. has been extended to deep water. The only difficulty in the scheme appears to be in connection with the rates of freight charged upon these two lines of railway. Lumber has been actually brought for over 200 miles over the Canada Central and its connections to Hull, but it has not been found possible after paying the freight thereon, to go to the expense of shipping it by Q.M.O. & O. R. to this city. The Local Government of Quebec and the management of the Provincial line have attempted patriotically enough to overcome the difficulty, by offering exceptionally low rates for the development of this trade, amounting to something like \$17 to \$29 per car from Hull to Quebec, a distance of 280 miles. Those interested in this proposed route are not without reasonable hopes that an arrangement will be made between the Provincial or Q.M.O. & O. Railway and the Canada Central, which will allow of the shipment of lumber by rail direct to deep water at Quebec, and avoid the danger and delay of rafting.

The most important event in connection with the lumber industry which has occurred here for a long time past, is the conference had here yesterday between the members of the Local Government and a deputation of lumbermen, concerning the new table of Crown timber dues imposed by the Order-in-Council of November last. It will afford a better understanding to readers outside of Quebec, to explain that prior to the passing of this Order, the dues imposed were ten cents upon logs of 16 inches diameter and under, and fifteen cents upon those of 17 inches and upwards. These dues have been increased to twelve instead of ten cents, and twenty-six cents in the latter case instead of fifteen. Now, the lumbermen complain with reason, not only that the rates, since the new imposition, are exorbitantly high and more than they can afford to pay, especially after so many seasons of depression in the trade, but also that the system of levying the dues is manifestly unfair, and operates to the disadvantage of those getting out a small class of logs. The lumbermen ask therefore, not only that there should be a reduction in the dues, which, by the new Order-in-Council, have been increased from 50 to 75 per cent, but also that the method of levying them should be assimilated to that which obtains in Ontario, where, instead of levying upon the dimensions of the log, a standard of the board measure contained in it is adopted, based upon the tables in Scribner's Doyle. These demands of the trade, decided

upon some weeks ago at a convention of lumbermen held in Ottawa, were embodied in a petition to the Provincial Government of Quebec, and an interview was arranged which took place in Montreal. The Commissioner of Crown Lands, Hon. E. J. Flynn, was prevented by illness from participating in this meeting, and consequently a second convention was arranged, through the exertions of Hon. J. Ruggles Church, and took place in this city yesterday. All the Ministers of the Local Government were present, and the following lumbermen. Messrs. James McLaren, E. H. Bronson, J. A. Cameron, J. R. Booth, and W. G. Perley, of Ottawa; and Messrs. Robert Hamilton, Andrew Thompson, and McNaughton, of Quebec. The grievances of the trade, as already exposed, were fully explained, and the demands of the lumbermen were urged upon the Government. It was shown that the dues imposed in Quebec amounted to something like \$1.22 per 1,000 feet if imposed as in Ontario by Doyle's Scribner upon the board measure contents of logs, while the dues in Ontario are but 75 cents per 1,000. By way of a compromise, it was agreed that the majority of those in the trade, recognizing the necessity of the Provincial finances, would be willing to pay equivalent to \$1.00 per 1,000. After a lengthy and pleasant conference, the Hon. Commissioner of Crown Lands informed the deputation that he hoped to be able before long to promise the lumbermen some slight concessions and probably a diminution in the tariff. It was also possible, he said, that next year there might be a change in the system of collection. This, however, could not be attempted during the present season, owing to other instructions having been sent to agents and bush rangers. The members of the deputation left for home the same evening. **SIADACONA.**

Board of Trade Returns.

Showing receipts of wood imports into the United Kingdom for the last three years:—

TIMBER, WOODS.	1878.	1879.	1880.
Russia	322,219	174,888	356,649
Sweden and Norway	468,090	436,653	658,881
Germany	216,158	200,911	277,570
British North America	290,880	196,431	360,622
Other Countries	413,442	369,322	486,143
	1,680,805	1,378,215	2,110,874
TIMBER, SAWS OR SPLIT, PLANED OR DRESSED.	1878.	1879.	1880.
Russia	914,807	723,609	1,000,608
Sweden and Norway	1,453,477	1,406,730	1,098,201
British North America	963,171	904,559	1,147,040
Other Countries	257,641	218,414	271,055
	3,610,096	3,253,312	4,086,904

As it may be of interest to timber operators to know the points in the United Kingdom which received the bulk of the imports of hewn timber, we annex the following statement:—

IMPORTS.	1880.
Cardiff	210,220
Greenock	90,303
Hartlepool	168,866
Hull	80,329
Liverpool	128,330
London	211,424
Newport	125,711
Sunderland	122,855
TOTAL	112,973

All the above in loads of 50 cubic feet.

Value of Sawdust.

We should hardly credit so large a story from a less reliable source than the *N. W. Lumberman*, but we presume the editor has the statistics at hand to confirm his assertions:—

"In New York there are about 500 venders of sawdust, having a capital of \$200,000 invested, and doing a business amounting to more than \$2,000,000 annually. Forty years ago the mills were glad to have sawdust carted away; twenty-five years ago it could be bought for fifty cents a load, but the price has increased, and now it brings \$3.50 a load at the mills. It is used at the hotels, eating houses, groceries, and other business places. It is wet and spread over floors in order to make the sweeping cleaner work. Plumbers use a great deal about pipes and buildings to deaden walls and floors. Soda water men and packers of glass and small articles of every kind use it, and dolls and some living creatures are more or less stuffed with it. Yellow pine makes the best sawdust, as it is the least dusty, and has a pungent, healthy smell. But any white wood dust will do. Black walnut sawdust will not sell and is burned."

THERE are 215 penitentiary convicts employed in logging camps in Texas.

THE VANISHING FORESTS.

The New York *Shipping List* says: The American people boast of their quickness to profit by the logic of events but in respect to many things in the line of general duty to society, they are as slow to learn as was the ancient Egypt, who resisted a number of very convincing arguments with which the Lord had intrusted Moses. There can be no doubt, in light of events, that the greed of man, and not the unkindness of nature, must be held responsible for the increasing frequency of draughts in this country. By such an extensive denudation of forest lands is now being practiced, we are seriously disarranging Nature's economy and interfering with the conditions that are essential to her healthy processes. It is a generally understood fact, upon which scientific men have now no monopoly, that the increase of draught is, in the long run, in direct ratio to the destruction of the forests and general tree supply. A statistician, who claims to have made accurate calculation, declares that the pine forests of Michigan will be exhausted in thirteen years, and those of Wisconsin and Minnesota in thirty and forty years. There is little reason to doubt the approximate accuracy of the estimate. Twenty years ago this region had scarcely been touched by the axe. The disappearance of forests will make the economy of wood a matter of duty, could a generation habitually thoughtless of its descendants be influenced by such a remote evil. We are a little too much inclined to guard the claims of our descendants as did the miserly humorist, who, when asked to do something which conduced to the good of after ages, asked why he should be called upon to do anything for posterity since posterity had never done anything for him. Wood must always enter more or less into building enterprises. If for no other purpose, our forests should be spared from wanton destruction. If we can economize them by using the more substantial building materials with which nature has so lavishly supplied us, and at the same time save moisture for the parched country, and add safety, beauty and durability to our cities and villages, it is certainly worth our while to make the effort.

Blowing off Boilers.

A French scientific journal gives some useful hints in regard to emptying and blowing off steam boilers. It is injurious to empty a boiler soon after stopping it, because, in the case of an externally fired boiler, the masonry in which it is placed being at a higher temperature than the boiler it envelops, imparts to it some of its heat, which, in the absence of the water, may do it some harm. It is well to admit a current of air through the flues some hours after stopping the generator, and not to empty it before the flues become cooled to a temperature below 300°. When the flues are not too hot, no serious inconvenience is experienced in emptying the boiler under pressure. We do not say at high pressure, as for a boiler, the pressure of which would be 10 pounds, the temperature of the water being 304°, a great quantity of steam would be generated during the process of emptying; we think at a pressure of two pounds the boiler could be emptied without danger or inconvenience. We have sometimes seen owners empty their boilers almost immediately after the fires had been extinguished, clean them with cold water as soon as they were empty, and keep up a current of water so that the workmen might work there. Boilers of small dimensions sometimes resist such treatment, but in large boilers it will be seen that unequal contractions must take place, causing the rivets to burst.

Accurate Statistics, &c.

THE CANADA LUMBERMAN.—This is the title of a paper published in Peterborough, by Tokor & Co., devoted to the interests of the Lumber and Timber Industries of the Dominion. THE CANADA LUMBERMAN will be purely a trade organ, and will be absolutely non-political. It will contain those accurate statistics which are necessary to the trade as a basis for intelligent operations. All information of value to the trade at large will be diligently collected and matters of interest to them will be discussed and advocated. Subscription \$2 per annum, published semi-monthly.—*Brantford Courier*.

APPREHENSIONS OF NORTH-WESTERN LUMBERMEN.

The *Mississippi Valley Lumberman and Manufacturer* has the following concerning the logging situation on the Upper Mississippi streams:—

"The gravity of the situation comes not so much from the fact that there is too much snow for logging purposes as from the danger of a sudden thaw, which would certainly create the most disastrous floods ever known on the continent. This danger is so imminent that all stand in fear at the probable events of the next sixty days, which will almost certainly ruin scores if not hundreds of lumbermen. There is now more than double as much water on the 150,000 square miles drained by the waters of the Upper Mississippi as there has been since its first settlement at any one time. Last year the floods did more than a million and a half of dollars' damage to the lumbermen of the valley, but from the situation now the losses of 1881 will render the damage of last year insignificant. Those who have logs secure in lakes and small streams will do well to keep them there as long as possible."

FOREST FIRES.

We find the following editorial in the *Montreal Witness*:—

The loss caused by forest fires may be partially seen by a statement made by Mr. Mackay, the great Ottawa lumber merchant, that in four townships between the Mississippi and Mackinaw rivers, which fifteen years ago were one of the finest pine countries ever known, the pine has almost all been destroyed by forest fires, started by malicious vagabonds. A series of interesting articles on forestry, by a special correspondent, appeared in the *Witness* a couple of years ago, in which it was made very plain that if remedial legislation were not had and a stern example made of the "malicious vagabonds" and others who, though not malicious, have no sense of responsibility when making fires in the bush, our magnificent forests would in a few years be a thing of the past. Every patriotic man should consider himself personally a custodian of these immense sources of wealth to the country, and do what is in his power by example, rebuke, advice, and, where necessary, "legal persuasion," to make people, especially wandering vagabonds, understand their value.

Port Hope Freight Rates.

A meeting of the vessel-owners of Port Hope was held at the office of Mr. R. C. Smith, jr., to take into consideration the rates of freights from this port. Mr. R. C. Smith, jr., was in the chair. After a general discussion and careful calculation of the expenses of vessels, at the lowest rates, the following rates of freight were adopted, and the owners pledged themselves to carry them out in good faith. The resolutions are based with equal fairness to owners and shippers:—From Port Hope to Oswego, and other American ports on Lake Ontario, lumber, \$1.20 per 1,000 ft.; shingles, 20c. per 1,000; lath, pickets, &c., at a proportionate rate; grain 2½c. a bushel (Oswego to Kingston); coal, 4c. per ton (free in and out Oswego to Port Hope); hay, \$2 per ton (on and off rail, with deck load); on all other articles of freight, the rates to be regulated by the expenses incurred for the trip and the foregoing freights.—*Times*.

Toronto Freight Rates.

The ice still remains firm in the bay, although the recent fine weather has so honeycombed it in places that crossing it is now considered dangerous. Special telegrams from various ports tend to show a similar state of affairs existing over the lakes, and point to a late opening. At this point preparations are being actively made for the opening of navigation, and both vessels and docks are being thoroughly overhauled and repaired. Rates promise to open higher than last spring, and charters have already been made at \$1.25 per thousand on lumber to Oswego.

THE difficulty experienced, in filling orders in the Chicago market, on account of broken stocks is on the increase in the American markets, and it is said that on this account in some markets the lumber being handled is not far removed from green.

Trade Notes.

Canada.

RAILWAY ties and cedar posts are being shipped in great quantities from Kemptonville to the United States.

MEMPHIS.—Twenty-nine years ago Mr. Geo. Wright planted a spruce about six inches in circumference. Last season, it measured five feet nine inches in circumference.

THE Halifax News Era says: Of inward freight we note 41 cars deals and timber for the loading ships at the depot, and 213 cars coal. Three large ships of from 600 to 1,000 tons each, are at present loading deals and timber at our railway depot.

THE Collingwood Messenger says: From Byng Inlet we learn that lumbering operations are over for the season, all the logs required being in. It has been a very favorable winter for lumbering purposes, and there are more logs cut for Byng Inlet mills than in any past year.

THE value of buildings already projected in Toronto, exclusive of the Parliament buildings and Court House reaches to nearly half a million dollars. On the whole the outlook for building operations in Toronto during the present season, and therefore for the local demand for lumber, is brighter than in any preceding year.

TWENTY-FIVE cars of lumber are being shipped at Ottawa city daily, by the St. Lawrence & Ottawa Railway, to the United States. Last week Bronson & Weston shipped ten car loads of timber by the Canada Central Railway to New York. Col. Robbins also shipped ten car loads of iron ore to the same place.

A raft of wood belonging to Mr. Alexander Russell, of Levis, went adrift the other day opposite Beaumont, with three men on board, who were several hours afloat and suffered very severely from the cold. Mr. Russell sent the steamer *Prince Edward* to their assistance, but it failed to find them owing to the darkness of the night; meantime they managed to land at Beaumont.

A COMPARATIVELY new industry is the getting out of hop-poles for the American market. For this purpose small cedar is greatly in demand, owing to its lasting character. Large quantities have been shipped from the stations of the St. Lawrence and Ottawa Railway, and other local lines. Within four weeks from fifty to sixty car loads have been shipped from Buckingham station alone.

A GENTLEMAN just arrived from the Upper Ottawa states that at Fort Eddy, which is 117 miles from Pembroke and 236 from Ottawa, there is plenty of snow for good sleighing. The cut of logs in that region has been in excess of any previous year. It is thought that owing to the large quantity of snow there will be no difficulty in floating out the timber and logs. Shantymen and teams are on their way down the river in large numbers.

ORILLIA.—Last week, Mr. Wm. Ramsay, of the Orillia Carriage Works, shipped to Emerson and Winnipeg, by the Midland railway via Whitby, one hundred and ten vehicles—wagons, buggies, and buckboards, all manufactured since the 1st day of February. Mr. Ramsay expects to follow up this shipment with another equally as large in the course of a few weeks. He has about forty men employed, and has enough orders ahead to keep them hard at work for some time.

WASHAGO.—A correspondent writes: Saw-logging has been a boom in this part of the country, the weather and roads being all that could be desired. Thompson, Smith & Sons, of Bradford, and Andrew Tait, of Orillia, have a large quantity of logs on this end of Lake Couchiching. Mr. A. Marshall and others are getting out considerable, and the three shingle mills are running steadily. Messrs. Tobey & Co., of Collingwood, are doing a large business in tumbark; the station yard is nearly filled with it.

FOLLOWING the example of Ontario, an effort is being made in Quebec to interest British capital in the lumbering interests of that Province. Mr. H. Atkinson, of Messrs. H. Atkinson & Co., is at present in Britain forming a joint stock company to work lands in which his firm and La Banque Nationale are interested. He has met with good encouragement and it is

reported that on the strength of his favorable reports, supplies are being sent into the bush so as to be ready for an early start next fall. Messrs. Girouard & Beaudet, who have extensive lands in the Saguenay district, and a fine steam mill at Betsiamis, will also likely put their business into the shape of a joint stock company, and Mr. Girouard is at present in England negotiating to this end.

American.

ONE hundred and fifteen ship builders from Scotland arrived, recently, to work in the ship yards of Detroit, Mich.

IN Boston, the stock of hardwoods has been somewhat enlarged by late arrivals, but prices are firm and unchanged.

PARCHMENT made from the palmetto of Florida is likely to come into quite general use for conveyances, land office receipts, etc.

ONE of the institutions of Beaumont, Texas, is a cistern-factory. The cisterns are made of cypress, and shipped in pieces, to various parts of the state.

IN New York, extreme rates are obtained for everything desirable. Seasoned oak and ash are scarce, and, owing to the limited supply of walnut, the extra demand for mahogany continues.

A CLEVELAND, Ohio, paper says that the present season promises to tax the vessel capacity on the lakes to the utmost and that a marked advance in the freight rates may be looked for.

HENRY & BALDWIN, of Wells River, Vt., have sold their Granby mill land of 13,000 acres, to T. G. Beattie, of Brunswick, and A. M. Beattie, of Lancaster, for \$4 per acre. The late owners bought the land, in 1871, for something less than \$1 per acre.

THERE are no changes to note in Detroit prices; in fact, the question of price is not put first. Now, the first inquiry is, Can you furnish the bill? Next, Can you deliver at once? If the dealer can furnish and deliver at once he can make a price to suit himself, particularly on dry stock and large or long dimension stuff.

THE Saginaw lumber market has developed no noteworthy changes. Appearances begin to indicate the approach of spring, and some buyers from eastern points have arrived to look over the market. I have heard of no sales, and, so far as learned, no desirable lumber is offering; in fact, that class of stock is not on the market. Prices are steady and firm, with prospects of a very active season.

HON. ALEX. STEWART furnishes the Wausau Wisconsin with figures on the season's log crop on the Wisconsin and its tributaries as follows: Upper Wisconsin, 52,750,000; Somo river, 9,600,000; Tomahawk river, 5,500,000; Willow river, 5,900,000; Spirit river, 6,600,000; Devil creek, 1,100,000; Copper river, 3,160,000; New Wood creek, 8,500,000; Prairie river, 10,000,000; Trapp river, 5,700,000; Pine river, 16,700,000. Total, 124,475,000 feet.

AT Milwaukee trade has been very near at a stand still, owing to the big snow storm, as no lumber can be shipped at present on account of our railroad companies refusing to let dealers have cars before they have got their road cleared from snow so they can again move freight. If this snow storm had not set in they would now be enjoying a good trade. Stocks are getting badly broken on just, scantling and timber; we also hear of a number of dealers being short on 16-foot fencing.

A establishment has recently been started near Mobile, Ala., for the manufacture of furniture from gum. The enterprise will be watched with much interest, and should it prove successful, others are sure to spring up in various parts of the country, as it will be a solution to one of the vexed problems of the day. Since walnut has become so scarce and high, furniture manufacturers have been anxiously hunting for something to supersede it, and if it be found in gum it will be a wood at once cheap and abundant.

THE large tract of pine timber land on the upper waters of the Pere Marquette river in Lake and Newaygo counties, Michigan, known as the Waters tract, changed hands recently. It was owned by H. D. Waters, and contains 4,000 acres, from which it is estimated that from 50,000,000 to 100,000,000 feet of pine will be cut. The purchasers are Messrs. Thompson & Patter-

son, of New York, and Messrs. Walkup, Fisher & Co., of Chicago, who intend making arrangements with some party to build a mill near Crooked Lake, for the purpose of turning the timber into lumber and putting it on the market.

THE cedar tie trade at Cheboygan this season promises to be the most profitable one for several seasons past. One of the most extensive dealers says he is constantly in receipt of letters making inquiries as to whether they can be had in that section. These inquiries come from all sections of the country and show that railroad matters are booming. Several hundred thousand ties are being got out in that vicinity and the indications are that sale could be had for as many more. The most of those being got out are already contracted for.

THE contracts made by Chicago dealers for maple aggregate millions of feet. The demand for maple flooring has not been met for some time past, but there is no probability that it will be scarce for some time to come, although the dry kiln will be for a while called into use. That the sales of this kind of flooring for the present year will exceed those of any two years past, there is no doubt. At the same price many prefer it to ash, and the high price of the latter will cause it to be looked upon with still less favor.

A GENTLEMAN, who has recently been traveling through the lumber regions of Georgia and Florida, writes to the *Lumberman* that he never saw so many vessels on demurrage at the principal shipping points before. They are prevented from loading through the inability of the mills to supply them with cargoes, the long continued rains having made it impossible for the manufacturers to get the logs to saw. In many cases, the mules work in water up to their haunches hauling logs, and after they are hauled, many of the streams are so full it is dangerous to raft them.

THE stave market is pretty well cleaned out. The dealers in Michigan are receiving orders from Iowa, Wisconsin and Minnesota, that they are not able to fill. They attribute the scarcity, partly, to the snow blockade that has kept them back; but, from what we learn, it is safe to say that the stave cut in Indiana has been light this winter. A firm in Minneapolis that heretofore would not use an elm stave has just ordered 100,000 from a dealer here, and other firms are necessarily looking in the same direction. Hoops are in moderate supply and without change in prices, except flat, No. 1, which are selling higher.

THE Diamond Match Company is the name of a corporation recently formed in New Haven, Conn., which, if all reports concerning it be true, starts out with the intention of becoming one of the greatest monopolies in the country. According to the statements made regarding it, it has a capital of \$2,250,000, something over one-half of which represents property already purchased, consisting of 23 match factories in different places. It is said to be the purpose of the company to buy up all the factories it can get and convert the business of making matches into a monopoly. To this end it proposes to limit the production and regulate prices.

A BEAUMONT, Texas, paper says that the demand for lumber at the present time is unprecedented in the history of Texas. The only thing which now prevents the mill men from realizing immense profits is the lack of cars to carry their lumber. This defect is being remedied in a measure; but there is another matter of intense interest to them and to that place. The long continued rain has made the hauling of timber impossible, and the consequence is that the supply of logs on hand is short in comparison, both to the cutting capacity of the mills and the demand for lumber, and the lumbermen hope that they will soon be able to ship their stuff promptly.

FROM Cadillac, Mich., it is reported that the bill stuff trade there is beyond all precedent. Prices for same are at least \$1 higher, and orders hard to place. Dry stock is very much diminished and nearly all desirable grades are out of first hands. Stocks are badly broken. Buyers are plenty. Some manufacturers are shipping stock barely half dry and putting a price upon it to cover added freight. Prices are, of course, very firm. Opinions differ as to the future. Some dealers are rushing off their stock

at quoted prices, as fast as they can get cars, in anticipation of a drop as soon as the dry stock along shore can be reached by water. No one expects a further advance, unless temporarily. There are 33 per cent. more logs in lumber yards than at the same date last year.

THE cut of hardwoods this season, it is said, will be the largest in the history of the business. Everybody that can get a log will cut it. To this rule we know of but one exception. Some of the Michigan men are holding their maps in reserve, entertaining the opinion that, on general principles in the lumber business, rarely comes to the surface, that a few years hence there may possibly be a call for maple flooring. How wise a move it is, a few years will tell. An extensive pine operator in Michigan recently said to the writer, that although his business was a good one so far as profits are concerned, if he were to sell his mill property and put the money into standing hardwoods, he would expect at the end of a few years to be the winner.

THE *Northwestern Lumberman*, under date of March 16th, says: Anyone in pursuit of information regarding the state of the lumber business throughout the country, and desirous of finding it in a flourishing condition, will not be seriously disappointed in reading the reports from the various distributing points. They uniformly speak of trade as good; in some cases it is characterized as remarkable, considering the season of the year and the fact that the atmospheric conditions are, and have been, so unfavorable for the sale of lumber. The present demand regarding it as a whole, is excellent. Orders are plenty, and inquiries, which afford an even better index of the feeling among the retailers, are received in such numbers that owners of lumber yards are beginning to talk enthusiastically of the business that is likely to be transacted this spring. The indications certainly point to a very large spring trade, and most operators are satisfied that the first of it is already reaching the points of distribution. The general report is that almost any quantity of new buildings have been projected, and their erection will be begun as soon as the season is far enough advanced. The expectation on every hand is that the business of this season will largely exceed that of last year, or any year, in fact. The *Lumberman* does not recall a time in the entire history of the trade when the confidence in the future was so great, or when the dealers, at this time in the spring, manifested such a degree of satisfaction with the business doing. There seems to be no question, anywhere, but that we are entering upon a season that will go down in the annals of the lumber trade as one of the most active and prosperous for lumbermen ever known.

IRWIN & BOYD

Commission
Lumber Dealers,

FORWARDERS,

Shipping & General Agents

PORT HOPE.

White Oak and Ash
LUMBER WANTED.

ADDRESS

YATES AND STRATFORD,
BRAITFORD.

NOTICE.

The undersigned having transferred the CANADA LUMBERMAN to Messrs. Toker & Co., Peterborough, it will in future be published by them. The facilities possessed by this extensive and old established house, and the high reputation of the publishers, should be a guarantee that the LUMBERMAN will command a prominent position amongst the leading journals of the day. Those who should patronize it are a wealthy and influential class. The field is ample, and as the undersigned made the transfer above referred to with a view of improving the LUMBERMAN, he feels assured that it only requires the combined support of those in whose interest it is published to ensure it that success which was anticipated when he first established it.

All sums due for subscriptions must be paid to TOKER & Co., or their duly authorized agent.

ALEXANDER BEGG.

February 21, 1881.

The Canada Lumberman

DEVOTED TO THE LUMBER AND TIMBER INTERESTS OF THE DOMINION.

PUBLISHED SEMI-MONTHLY BY
TOKER & Co. PETERBOROUGH.

Terms of Subscription.

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Per line, for first insertion..... 10
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Cards not occupying more than 12 lines (1 inch)
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for six months..... 5 00
Cards not occupying more than 6 lines per annum 5 00
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Special rates will be made for page, half page and column advertisements.

Advertisements intended for insertion in any particular issue should reach the office of publication at least three clear days before the day of publication, to insure insertion.

All communications, orders and remittances should be addressed and made payable to TOKER & Co., Peterborough, Ont.

Communications intended for insertion in the CANADA LUMBERMAN, must be accompanied by the name of the writer, not necessarily for publication, but as a guarantee of good faith. Communications to insure insertion (if accepted) in the following number, should be in the hands of the publishers a week before the date of the next issue.

Travelling Agent.

MR. A. L. W. BEGG has been appointed agent for the CANADA LUMBERMAN, and is authorized to collect subscriptions and grant receipts therefor and to make contracts for advertisements appearing in its columns.

PETERBOROUGH, Ont. APRIL 1, 1881

OUR WOODS AND FORESTS.

In our introductory editorial of the first number of this paper issued from this office, we briefly sketched out the policy in regard to the conservation and management of our forests, which we proposed to advocate. We asserted that the responsibilities attached to this subject should be dealt with by a separate department of the Local Government, which might very properly be called the Bureau of Woods and Forests.

In comparatively new countries such as ours, there is a disposition on the part of the general public to over estimate the areas of timber lands and the quantity of the industrial woods upon them. This arises no doubt from the fact that so long as the required Government revenue is derived from this source, the diminution of forest areas by manufacture, by fires and by other destructive causes excites little attention. If there is any useful lesson to be learned from experience why should we not look for the causes which have demerited European and other countries of their timber investigate their manner of dealing with the question—and adopt

the best methods which modern intelligence has brought to bear on the subject? It should be kept in mind that the prosperity of this country is, in a great measure, dependant upon the existence and the activity of the lumber trade—a trade that in this Dominion of ours gives employment directly, it is estimated, to 100,000 men and 20,000 horses, not to speak of the indirect employment it gives to manufacturers of woollen goods, boots and shoes, and other clothing, to axo factories, foundries and saw manufacturing, to railroads and their employees, to vessels with their crews, and to a host of others too numerous to particularize. It is none too soon to call public attention prominently to this, and to have investigations made to ascertain how long the forest resources of the country will stand the present drain upon them. It is none too soon to enquire what industry can be established to take the place of this leading factor in Canada's present prosperity, when it is exhausted.

So far we have only alluded to the immediate effect of losing this industry from the want of the raw material, and the most sanguine do not pretend that the period of exhaustion will be extended beyond twenty years. But we propose to look somewhat further and to ask if the study and promotion of arboriculture under Government auspices is not necessary to protect and foster even the agricultural interests of the country. The climatic influences of well distributed forests are only now being understood and appreciated. The effect they have in influencing the humidity of the air and soil—in mitigating the extremes of heat and cold—in preserving the equable flow of streams—in retarding too sudden evaporation—in the hygienic influence upon the population—are not these matters which should command the attention of our legislators? We shall endeavor to call public attention to the subject by showing what progress other countries have made and the means they have adopted to repress and replace the ravages of the ruthless axo-man and the deadly incendiary.

THE PRODUCTS OF THE FOREST.

One of the eight schedules prepared for use in the taking of the census of the current year is devoted entirely to obtaining a return of the products of the forest for the twelve months ending the 4th instant, divided under the following seventeen headings, viz:—

1. Number of cubic feet of square white pine.
2. Number of cubic feet of square red pine.
3. Number of cubic feet of square oak.
4. Number of cubic feet of square or sided tamarac.
5. Number of cubic feet of square birch and maple.
6. Number of cubic feet of square elm.
7. Number of cubic feet of black walnut.
8. Number of cubic feet of other species of walnut.
9. Number of cubic feet of hickory.
10. Number of cubic feet of all other kinds of square or sided timber, including railway ties.
11. Number of census standard of pine logs.
12. Number of census standard of spruce and other logs.
13. Number of spars and masts, including telegraph poles.
14. Number of thousands of staves.
15. Number of cords of lath-wood.
16. Number of cords of tanbark.
17. Number of cords of wood.

*The census standard is 100 feet.

If the enumerators discharge their duty properly and the "getters" out of our forest products exercise a reasonable amount of forethought and care, in giving the information for which they are to be asked, much valuable information will thus be obtained with regard to this most important product of our Dominion. We trust that those who can alone furnish the information asked, will deem it their interest as well as their duty to take sufficient trouble to give the facts as they really are and not as they may estimate them in a haphazard sort of fashion—a little forethought is all that is required to do so.

The circulation of the CANADA LUMBERMAN is over 2,000 copies. Advertisers should note this.

CAPITAL OR REVENUE.

The *Monetary Times* of March 4th, in an editorial on Provincial railways subsidies has the following paragraph:—

"A sensible thing to do would have been to separate receipts, which properly belong to capital, from those which properly belong to revenue; otherwise, when the last acre of Crown lands is sold and the proceeds spent, an important source of revenue will have been dried up. The Crown lands might reasonably have been treated as a source of capital, and the net proceeds derived from them, less perhaps what comes from timber, formed a fund intended to be productive when these lands all become private property. A reserve of this kind, intended to meet a deficiency now dimly foreshadowed in revenue, would have been an intelligible provision for the future. An accidental surplus accumulated to-day and liable to be dissipated to-morrow, is more purposeless and less certain of permanence."

While we fully agree in the propriety of treating the land receipts as capital, we maintain that the still more important receipts from our forests should also be looked upon as capital—not revenue. Our forests are being rapidly destroyed and this valuable public property being thus made away with, it is common sense to admit that our capital is by so much diminished. If such a system were adopted as obtains in older countries, by which the forests are perpetually maintained unimpaired, the yearly produce might then fairly be looked upon and treated as revenue.

BRITISH COLUMBIA—ITS TIMBER, &c.

That section of British Columbia west of the Cascades and including Vancouver and Queen Charlotte Islands, is, according to Professor Macoun, covered with, probably, one of the finest forests in the world. Chief amongst the trees is the Douglas Fir (*Abies Douglasii*), which is the chief forest tree, and which is used throughout the country for building purposes, and for export in the form of deals and spars.

White Cedar (*Thuja gigantea*) is another giant, and in the Valley of the Fraser and up the coast attains to an immense size. The Indians use this wood altogether in the construction of their houses, and in building those large canoes which are the wonder of the eastern people.

The other trees are a species of Yew, another of Alder, two species of Fir (*Abies Menziesii* and *Grandis*); two species of Pine (*Pinus contorta* and *monticola*); two species of Maple (*Acer macrophyllum* and *circinatum*); Hemlock Spruce (*Abies Mertensiana*) is a common tree on the mainland; while a species of Oak (*Quercus Gayrana*) is abundant on the Island, but has not been detected on the continent. An evergreen tree (*Arbutus Menziesii*) is quite common along the coast of the Island, and, both summer and winter, its foliage contrasts finely with that of the sombre-tinted Douglas Fir.

In the second, or arid district, a Pine (*Pinus ponderosa*) takes the place of the Douglas Fir of the coast, and is a very valuable tree, growing to a large size, with clean trunk, and resembling the red pine of Ontario very much. The tops of the lower mountains and the sides of the higher ones support a heavy growth of Douglas Fir, but it is far from being the beautiful tree of the coast.

The timber of the third region is not so good, and consists principally of Poplar and Black Pine (*Pinus contorta*) with occasional groves of Douglas Fir on the higher hills. Black and White Spruce with a little Balsam Fir make up the remainder.

The Island of Vancouver is about 300 miles in length with an average breadth of about 60, and probably contains 20,000 square miles. The soil is good, but the surface is so much broken by rock that it is altogether impossible to tell the amount of good arable land on the Island. There is no doubt the day will come when Vancouver will support a large population—partly agricultural, and partly engaged in mining, lumbering and fishing.

Burrard Inlet is situated on the Gulf of Georgia, a few miles from New Westminster. It is nine miles long—deep and safe. It is the port from which the lumber trade is chiefly carried on. It is very easy of access to vessels

of any size or class, and convenient depth of water for anchorage may be found in almost every part of it.

Various species of raspberries, currants, gooseberries, and blueberries are found throughout the country. The Oregon grape (*Berberis aquifolium* and *nerosa*) extends all the way from Vancouver to latitude 55° in the interior, and to Alaska along the coast. Apples and pears of a very large size are produced in such abundance that the former can hardly be sold at any price.

LONGFORD.

On Monday, the 14th instant, Mr. William Thompson, eldest son of Mr. John Thompson, President and Manager of the Longford Lumber Company, was presented with a valuable gold chain and locket, from the employees of the Longford Mills, it being the anniversary of his twenty-first birthday. Mr. John Thompson was also at the same time presented with a tray and elegant silver tea-service and liquor stand, accompanied by the following address from employees in his mills and shanties. The address was read by Mr. Stewart, engineer:—

To John Thompson, Esq.,

We, the employees of the Longford Lumber Company, desire to congratulate you and Mrs. Thompson on your safe return from your native land, hoping you have enjoyed yourselves, viewing the scene of your younger days. No doubt many of them were very dear to you, and you have met some of your relations and friends, who have drawn around you pleasant memories of the past. We take this opportunity of tendering to you our respectful recognition of your many excellent qualities, which you have shown in your dealings with us, your consideration of our faults, your ready sympathy in our troubles, and the special interest you take in our welfare, through a period extending from one to twelve years. We have felt like yourself many times, despondent at the financial depression prevailing through our country, in almost every occupation, but in your line of business particularly. But we are pleased that now a new era has dawned upon us and matters look more favorable, and we trust that during the coming years, you may have prosperity in every branch of your business, and we can assure you that anything we can do to make it more successful will be our delight. We wish to convey to you the esteem in which you and your family are held by us, and request you and Mrs. Thompson to accept this present as a token of our regard for you, hoping that an All Wise Providence will spare you both to enjoy many happy years together with your family.

Signed in behalf of the employees,

A. STEWART,

And 85 others

Mr. Maxwell Hall, accountant to the firm, on presenting the chain and locket to Mr. Wm. Thompson, read the following address:—

To Mr. Wm. Thompson:

DEAR SIR,—We, the employees of the Longford Lumber Company, felt as this is the anniversary of your twenty-first birthday, and having the very highest regard for you as the eldest son of our esteemed employer, would not allow this occasion to pass unnoticed. We therefore are delighted to congratulate you on arriving at you majority, the age at which one is supposed to leave the days of his boyhood, and reach forward and claim to be a man. The majority of young men on attaining manhood have very often to start out in the world with but small means, this, happily, is not your case, having at your command a large business in connection with your father, and having many of those sterling qualities, which compose the true man, and which we have all so much admired and respected in you. We can assure you that we hope you may long be spared to live a happy and useful life, and in your efforts to make your business a success you will have our warmest sympathies and assistance.

Signed in behalf of the employees,

MAXWELL HALL,

And 30 others.

The addresses were beautifully illuminated, and embellished with scenes associated with the life and business of a lumberman.

After the presentations, supper was partaken of in the spacious dining-room of the boarding-house in connection with the mills. The occasion was enjoyed by all present, and demonstrated the deep feelings of friendship and confidence existing between the employer and employee. Probably in but few business concerns in Canada, so large as this, does there exist the same degree of mutual good-will and cordiality as are to be found at Longford. After supper the dining-room was cleared and dancing kept up with great glee until a reasonably early hour in the morning.

THE average price paid for hemlock bark at Richmond, Que., is \$6.25 per cord.

BOOMS AND BOOMAGE.

The Municipal Council of the County of Northumberland, New Brunswick, have passed a By-law, ordaining:—

1. That the Boom Master of Barnaby River Boom shall, on or before the 31st day of December in each and every year, render to a Committee of three persons appointed by the shareholders of said Boom, a detailed statement of all lumber that shall pass through the said Boom during the season, together with the amount of boomage collected thereon.

2. That the Boom Master shall be entitled to receive out of the amount collected, the sum of \$1.00 per day for each day's actual attendance at said Boom, and the balance of the boomage collected shall be distributed by said Committee among the shareholders in proportion to the quantity of lumber each may have.

SLIDES AND BOOMS.

From the report of the Minister of Public Works for the year ending 30th January, 1880, under the heading "Slides and Booms" we have some instructive figures. The Government slides were constructed to effect the passage of timber, where impediments to navigation exist. Works have been constructed on the Saguenay, St. Maurice, Chouin, and Trent Rivers and some of their tributaries. On the former stream they consist of one slide 3,840 feet in length, with a boom of 1,311 feet and dams, piers and bulkhead. The slide takes the timber past the rapids between Lake St. John and the River Saguenay. The works extend over a distance of 60 miles, and occupied four years in building, having been begun in 1856 and completed in 1860. The slides and booms on the River St. Maurice and the Vermilion, one of its tributaries, are met in the order following:—

Stations.	Distance from Three Rivers.
River St. Maurice:—	
Booms at mouth of river	0 miles.
Gres Falls.....	16 "
Shawenegan.....	23 "
Grand Mere	29 "
Little Piles	31 "
La Tuque	100 "
Pamondon Eddy.....	103 "
River Vermilion:—	
Mouth of River.....	116 "
Iroquois Falls.....	121 "

The principal tributaries of the River St. Maurice are the Shawenegan, Mackinac, Matawan, Petit Bostonais, Grand Bostonais, Croche, Vermilion, Tranche, Grand Pierriche and Manouan. The following works were executed during the fiscal year:—A new pier was built at the mouth of the river St. Maurice with the view of rendering the fastening of the boom more secure, and the working of the swinging boom easier. Old piers at this station were repaired and raised. At Gres Falls, a new wharf was built on the site of the one carried away by last year's freshet. The old booms were repaired and 800 feet of new ones constructed. The slide at Shawenegan was completely restored, the booms repaired and other improvements made at this station. A dam measuring 110 feet long and 7 feet high was constructed at Little Piles, but the water carried it away. \$768.81 were expended during the year at La Tuque, towards widening by blasting the channel of the river at the head of the falls. The Government Works for the descent of timber in the Ottawa district, include 11 stations on the Ottawa Main River, 1 on the Gatineau, 15 on the Madawaska, 2 on the Coulonge, 1 on the Black, 21 on the Petowawa, and 12 on the Du Moine. On most of these, more or less work was, of an improving nature, done during the year. The booms, piers and slides and all such portions of the works as are connected with the lumbering operations on the River Trent at Chisholm's Rapids, Rannoy's Falls, Middle Falls, Heeley's Falls and Crook's Rapids, were transferred to a company formed purposely for the management and maintenance of those works, with the right of levying tolls thereon, at the rate of five shillings per crib, at each of the slides, except at Chisholm's and Crook's Rapids, where the works constructed do not facilitate the descent of timber. This rate was altered by an Order in Council, on the 8th Dec., 1866, fixing the tolls to be levied at Rannoy's Falls and Heeley's Falls, at one cent for each log of 13 feet in length, and a proportionate sum

on pieces of greater length; and one dollar on each crib of square timber. The company are not liable for the renewal of the works, in case of their failure from decay of materials, or their destruction by fire, flood or any other cause. It is their duty to keep an exact account of all monies collected by them, and to transmit the same to the Department of Public Works, as provided by the Orders in Council passed on the subject. The extraordinary repairs which from time to time were required have been executed at the expense of the Government, as also new works at localities other than those mentioned. Since the 20th of May, 1879, when the division of the Public Works Department into two Departments took place, the charge of the works connected with the Trent River navigation has not yet been apportioned between the two departments to which they respectively belong, but has been under the control of the Department of Railways and Canals.

THE TIMBER TRAFFIC AND THE Q. M. O. & O. RAILWAY.

We have no hesitation in affirming that a feeling of intense disappointment has been caused here by the failure of the owners of timber for this market, to make arrangements for shipping it to Quebec by Q.M.O. & O. Railway. It is well, however, to understand the causes that have so far prevented the inauguration of this most desirable traffic. Merchants having timber for Quebec, have of course a certain limit to which they can go in respect of the price to be paid for shipments. The first part of the route by rail to be traversed by this timber is that over the Canadian Central Railway from Pembroke to Aylmer, a distance of rather less than 100 miles. From Aylmer to Quebec by Q. M. O. & O. Railway is 280 miles. The merchants who have thus far attempted to bring timber by rail to Quebec, have found that on the 80 to 100 miles of the Canada Central Railway, the charge for the carriage of their freight has amounted to about two cents per ton per mile, or equivalent to \$16 to \$18 per car load for the run to Aylmer. This sum is found to be about one-half of the merchant's limit for shipping timber to Quebec, and consequently it has so far been necessary to unload the cars in the vicinity of Ottawa and send the wood to Quebec by water, owing to the very natural refusal of the management of the Government railway to convey it over that road 280 miles for the same figure as the Canada Central receives for carrying it about a third of the distance. The management of the Q.M.O. & O. Railway has, however, offered the lowest possible terms to the shippers in question, in order to foster and develop a traffic which is so urgently demanded in this city. With this object in view, a proposition has been made to shippers, looking to the carriage of timber from Aylmer to Quebec, at something like one instead of two cents per ton per mile, or an amount not exceeding \$19 or \$20 per car load for the whole distance from Aylmer to Quebec. A less amount would, it is said, entail an absolute loss upon the management of the Provincial road, which of course nobody desires. Mr. Chapleau has occupied himself very largely during his recent visit to Ottawa, in seeking to obtain some reduction in the rates of the Canada Central Railway, and, if possible, to secure some understanding between the management of the two roads relative to a similarity of rates. The Premier is not without hopes of accomplishing his project. The matter rests primarily, of course, with the Canada Central Railway, and it is so hoped the management of this road will see the advisability of agreeing to such rates as will enable the Q.M.O. & O. Railway to assist in the development of this very important and desirable traffic.—*Quebec Chronicle.*

The Publishers of the CANADA LUMBERMAN desire to obtain a reliable and well informed correspondent in every lumbering centre in the Dominion of Canada, and to that end would ask those disposed to act as such, to communicate with them at once, stating the facilities they possess for obtaining reliable, early and full information as to the lumber trade in their respective districts, and the remuneration which they will expect for their services as such correspondents.

LOSSES BY FOREST FIRES.

The *American Agriculturalist* says:—
"We some time ago stated that the Superintendent of the Census had placed all that relates to Forestry, including lumbering, and whatever concerns forestry as a source of national wealth, in the hands of Prof. C. S. Sargent, of the Arnold Arboretum of Harvard University. How thorough his investigation would be, those who know him need not be told. In a general way we may say that his own journeys to the Rocky Mountains and to the Pacific, as far as the forests of Washington territory, his employing of local agents, and the sending of experts to important localities, have been but a part of his labors. To show how every ramifications of the subject is provided for, we may refer to the circulars sent out to collect information as to forest fires. We often see articles in the journals lamenting the destruction of our forests by the demand for railroad ties and fuel; the wanton waste in clearing for farms, and the rapid destruction by lumbermen. It is believed, by those best able to judge, that the destruction of our forest by fires, is greater than from all other causes together. It is also known that such fires are annually increasing in number. It is believed that these fires are mainly due from avoidable causes, and that proper legislation is needed to prevent this useless waste of national wealth. For proper measures of prevention to be taken, it is an important point to know just the extent of the evil, and this it is proposed to learn by means of the Tenth Census. Prof. Sargent has prepared a circular to be addressed to the town officers in all parts of the country where forest fires may occur. This blank form, which can be readily filled, asks for the number of acres, or square miles of forests destroyed by fire in 1880; the value of the property thus destroyed; causes generally producing such fires, and any suggestions relating to the general subject of forest fires and how they may be prevented or diminished."

TORONTO AND NIPISSING RAILWAY.

The following statement shows the supply of saw logs on hand adjacent to the Toronto and Nipissing Railway, on the 15th March, which will be supplemented during the spring to make up the estimated cut of 1881, at the places mentioned below:—

Manufacturer.	Place.	Logs in ft.	Shipments.
J. E. Gould	Cobocook	1,000,000	2,000,000
Capt. Corson	Victoria Road.		500,000
A. Washington	" "	50,000	250,000
J. Graham	" "		50,000
McKenzie Bros	Kirkfield	6,000	500,000
J. McDonald	" "	1,700	150,000
J. Cowie	" "		140,000
J. Roddie	Sunderland		20,000
I. J. Gould	Uxbridge		500,000
W. Link	" "		75,000
H. Clarke	Goodwood	2,000,000	2,250,000
Bessie Bros	" "		1,500,000
White Bros	Stouffville		100,000
J. Milne	Agincourt	400,000	30,000
W. A. Milne	" "	750,000	100,000
J. Ramsden	Mount Albert.	500	60,000
E. B. Appleton	Vivian	3,000	700,000
R. McCormack	" "	4,000	1,501,000
R. & A. Bessie	Ballantrae	5,000	1,200,000
W. S. Ramsay	Sutton	600,000	800,000
			12,415,000 ft.

THE UPPER OTTAWA.

Le Moniteur du Commerce says that the timber trade is full of hope at present. Lately there had been abundant snowfalls on the Upper Ottawa, which is what the shantymen required. The cut has been large and snow was necessary to get the wood out of the forests. It is believed that the cut of square timber on the Upper Ottawa will reach 10,000,000 feet. During the last week twenty cars of square timber have arrived at Ottawa, and as soon as navigation opens they will be floated down for the Quebec market. Every day trains of lumber for the United States leave Ottawa by the Canada Central, the St. Lawrence & Ottawa, or the Q.M.O. & O. The opening of navigation at Ottawa gives promise of a greater activity in business than has ever been known there before.

A Vast Amount of Information.

THE CANADA LUMBERMAN.—Messrs. Toker & Co., of Peterborough, have purchased the above semi-monthly. The number of March 15th is in hand and contains a vast amount of interesting information in regard to the lumber trade. We have no doubt but that it will prove a success under the new management.—*Whitby Gazette.*

PENETANGUISHENE.

A report which appeared in one of the monetary journals gave the estimated cut of lumber in Penetanguishene for 1880, at six millions. The figures represent the cut of only one mill, and not of the mills collectively. Our cut this year, says a correspondent, will not be the full capacity of the mills, as our two new mills will not be prepared for working up to the full capacity until the following year. The figures, however, will be as near as possible as follows: Penetanguishene Lumber Company, five million; C. Beck & Co., six million; D. Davidson, three and a half million; F. McGibbon, three million, making an aggregate of seventeen and a half million. To this may be added a little more for the cut of Copland & Marchildar's mills. The timber shipments over the Northern via Penetanguishene will be very large, as the great bulk of the timber from the north will be shipped on the rail at Penetanguishene. A good deal of outside lumber, too, is expected to go over the line from mills on the Georgian Bay, and the wharf accommodation is expected to prove altogether inadequate for the requirements of the place.

Think While you Read.

The *Teacher's Journal*, in an article on methods of study, reminds the student that the first essential to successful study is the power of concentration of thought. This power is largely a matter of habit and cultivation. Read five pages of history in a haphazard manner. Close the book and write out all you can remember. Then compare your production with the printed matter, and you will be able to judge of your proficiency. Read five pages more with fixed attention and a resolution to retain the subject, and compare as before. You will find a marked improvement. If your memory is treacherous read but very little, and always write out the subject. When you hear a sermon or address, hear it, and afterward reduce it to writing. Read no novels, and do not read aloud to please others unless you care (nothing) for the article yourself. A practiced reader can read aloud for hours and carry on an independent train of thought all the time. This ruins the faculty of study as well as the memory. Dismiss all other subjects but the one in hand. Let the ear be deaf to all sounds, and the eye blind to all sights. Let the sense of touch sleep, and smell and taste be as though they were not. A lesson learned in this state of mind will stay with you, and will not need to be "crammed" again the night before examination. It will be like lines carved deep into the rock, or chiseled on the Rosetta stone. The other method is the dim tracing of obscure letters in the sand, which the next wave obliterates.

Travelling up Stream.

Travelling up stream with no other power the force of the current seems an impossibility, and no doubt it is so under ordinary circumstances; but a device has been invented for accomplishing that result. It consists of a car having the ordinary flange wheels and intended to run on rails placed on the edges of a flume. The power is the water in the flume acting on two paddle-wheels at either end of the car atached to the axles of the carriage. The force of the current turns the paddle wheels in an opposite direction from its flow as a matter of course turning the carriage wheels at the same time and propelling the car up stream. When it is desired to follow the course of the stream the paddle wheels are locked so that they cannot revolve and the carriage is carried down with the current. All that is required for this novel railroad is a stream of water passing through a flume, the rails on the sides, and the car with paddles corresponding in shape to the section of the flume. It is a Californian invention and its practicability is said to be established. A test trial with a working model has demonstrated the capacity of the carriage to carry about 8 lbs. of iron (exclusive of its own weight) for every inch (miner's measure) of water in the flume. A flume of six hundred inches of water would therefore furnish power to transport a load of about five thousand pounds, on any grade from four to twenty inches to the rod, at a speed of from four to eight miles an hour; a less grade causing a slower run.

Market Reports.

Toronto.

LUMBER.—The Journal of Commerce says that a number of shipments of clear and pickings have been made to the States, and receipts here are fair. It was generally expected that prices would be higher at the opening this spring, but, with the exception of a few kinds of hardwood, they are unchanged. We quote:

Table listing lumber prices in Toronto: Clear, 1 1/2 and upwards; Pickings, 1 1/2 and upwards; Inch, clear; Shipping culls; XXX 16-inch shingles; Lath.

Montreal.

Table listing lumber prices in Montreal: Ash, 1 to 4-in. P.M.; Basswood, 4-in. P.M.; Black walnut, culls, P.M.; Cedar, round, P.M.; Cedar, flat, P.M.; Grey elm, 1st quality, P.M.; Rock; Spruce, 1 to 3 in., P.M.; Red oak, P.M.; Pine, clear, 1 1/2 quality, P.M.; Pine, clear, 2nd; Pine, clear, 3rd.

Quebec Sales and Stocks.

We learn from an undoubted authority in Quebec, that their merchants now in Liverpool have done a fair amount of business at satisfactory prices in timber, but that deals were difficult to sell and that the business done in them had been on a limited scale. This success in Liverpool had led to some little enquiry in Quebec for square white pine and to the sale of three rafts. One of these was timber of 1877—70 feet average and 17 inches girth; price, 27c. per square foot. Another raft of 1877, 67 feet and 17 1/2 inches girth, with only from 5 to 6 per cent., first-class timber in it, price 24c. The other, a raft of superior Kippewa timber, the price and particulars of which were not stated.

These sales reduced the unsold timber in Quebec to three lots, in all 750,000 feet of square timber, besides about 60,000 feet of waney timber.

Chicago.

Chicago, March 16, 1881.—With a partial return of more moderate weather, the lumber trade of this city shows signs of improvement which has been anticipated by the dealers and so often predicted in these columns. The dealers report a demand fully equal to their expectations and fully up to their ability to supply in such stock as will bear shipping. A careful estimate of the stock of one-inch common boards and fencing, now in the yards of this city, discloses the fact that of the former there is now on hand, both of dry and green, of all kinds of boards below D stock, of No. 1, but 24,224,770 feet, and of No. 2, 10,231,000 feet. This is not for all lengths a stock equal to a proper proportion of 16 feet lengths in a well adjusted condition of this market. In fencing strips the inventory is no more satisfactory, showing but 4,671,396 feet of 12 feet lengths, 5,562,930 feet of 14 feet, and 20,597,000 feet of 16 feet in the No. 1 grade, and a total for all lengths of 11,172,000 feet of No. 2. Of the quality enumerated, fully 2,000,000 feet had been already sold, reducing the total yet in the market to about 29,000,000 feet. That this quantity, either of boards or of fencing, will supply the demands of the market until such time as navigation shall fully replenish the supply, is out of the question.

A price list meeting of the dealers was held today, at which a few changes only were thought advisable, or at present imperative. These were adopted with unanimity, the only objection urged against them being from those who thought higher rates were warranted. Under the head of box boards, the item C was advanced from \$26 to \$28. Fencing flooring was raised from \$15.50 to \$16, and 10-foot fencing from \$14.50 to \$15. Narrow boards, dressed and matched, and ship lap, and 10-inch common, were advanced 50 cents each. Common and cut boards were raised 50 cents on each item of the list. In fencing, the No. 1 grade was advanced 30 cents, and No. 2 grade \$1.

Dressed pickets were reduced \$1, on account of the course taken by a leading planing-mill firm with regard to them, and a committee was appointed to confer with that house, with a view to harmony. In dimension grades, joist and scantling, 12 to 18 feet, were advanced to \$12; timber, 4x4 to 8x8, up to 18 feet in length, to \$13; 2x4, 18 feet, to \$13; 10 and 20 feet to \$14, and 20-foot joist and scantling to \$17. Extra A shingles were fixed at \$3, and standard A at \$2.90. Oak timber is firmer; butternut is \$5 higher; maple flooring has advanced from \$2 to \$3, and walnut, 3/4 and 1-inch, 10 inches and up, select, is quoted \$3 higher.—Northwestern Lumberman.

YARD QUOTATIONS—CAR LOTS—DRY.

Table listing yard quotations for finishing lumber and rough lumber in various sizes and grades.

STOCK BOARDS.

Table listing stock boards in various sizes and grades.

COMMON BOARDS—ROUGH.

Table listing common boards in various sizes and grades.

TIMBER AND DIMENSION—DRY.

Table listing timber and dimension in various sizes and grades.

SHINGLES—16-INCH—DRY—CAR LOTS.

Table listing shingles in various grades and quantities.

PICKETS LATH.

Table listing pickets and lath in various sizes and grades.

CEDAR POSTS AND POLES.

Table listing cedar posts and poles in various sizes and grades.

Albany.

Table listing lumber prices in Albany: Pine, clear, 4 M.; Pine, fourths; Pine, select; Pine, good box; Pine, common box; Pine, 10-in. plank; Pine, 10-in. plank, culls; Pine, 10-in. boards, 10 ft., P.M.; Pine, 10-in. boards, 16 ft.; Pine, 12 in. boards, 13 ft.; Pine, 11 in. siding, select; Pine, 11 in. siding, common; Pine, 4 in. siding, select; Pine, 4 in. siding, common; Shingles, shaved, pine; 2nd quality; extra, shaved, pine; clear; cedar, mixed.

Tonawanda.

Table listing lumber prices in Tonawanda: Three uppers; Common; Culls.

Oswego, N.Y.

Table listing lumber prices in Oswego, N.Y.: Three uppers; Pickings; Pine, common; Common; Culls; Mill run lots; Siding, selected, 1 inch; Mill run, 1x10, 13 to 16 ft.; selected shippers; Mill run, 1 and 1 1/2 inch strips; Culls, selected; Culls, 1x4 selected for clapboards; Shingles, XXX, 18 inch, pine; XXX, 18 inch, cedar; Lath.

Buffalo.

Table listing lumber prices in Buffalo: We quote cargo lots; Uppers; Common; Culls; Dressing stocks; Dressing shingles.

The English Wood Market.

James Smith & Co's Liverpool wood circular of March 1st, says:—The arrivals since our last have been 22 vessels, 15,782 tons, against 12 vessels, 9,779 tons in a corresponding period last year, and 15 vessels, 12,995 tons in 1879.

FROM 26TH JANUARY TO 28TH FEBRUARY, 1881.

Table listing vessel arrivals from 26th January to 28th February, 1881, including ship names, tonnage, and origins.

FROM 26TH JANUARY TO 28TH FEBRUARY, 1880.

Table listing vessel arrivals from 26th January to 28th February, 1880, including ship names, tonnage, and origins.

FROM 25TH JANUARY TO 27TH FEBRUARY, 1879.

Table listing vessel arrivals from 25th January to 27th February, 1879, including ship names, tonnage, and origins.

The demand in the wood trade continues sluggish, so that little change takes place in the stocks, and if this continues there will be more than ample supplies until the new import comes in. Sales on contract are very difficult to make, and lower prices are being accepted by shippers; this applies more especially to spruce deals and pitch pine. Quebec woods may be said to fully maintain the rates demanded by shippers. Freights continue low and without change, although there are not so many vessels offering at the moment. Money is easy, and the Bank of England reduced the rate of discount on the 17th February to 3 per cent.

COLONIAL WOODS.—The import of yellow pine consists of 56,000 feet, against 25,000 feet last year. Consumption has slightly fallen off, and the stock is consequently still heavy. Sales have been entirely of a retail character, as the fresh arrival consists of a derelict cargo just received, which is on timber merchants' account. Red pine has improved in consumption during the month, but the stock is considerably heavier than that of last year. There are no sales reported. Elm The fresh arrival consists of 2,080 feet, and the consumption has been 3,000 feet, against 2,000 feet last February; the stock is rather heavy, but with the improved consumption it may not be considered excessive. Oak The consumption has fallen off very considerably; the stock consists of 476,000 feet; the sales have been by retail only. Black walnut is in fair demand, and sales have been made during the month at from 5s. to 5s. 3d. per cubic foot, averaging about 5s. 4d. per foot. Birch has been in better demand, and the stock has been considerably reduced, consisting now of 207,000 feet, against 173,000 feet; a fresh arrival of 721 logs, ex Keewaydin, from St. John, was offered at auction, and realized from 14s. to 23s. 1d., averaging 16d. per foot. N.B. & N.S. spruce deals. There is no falling off in consumption for the month as compared with the same time last year, but the stock is still 5,000 standards more, and prices have still further given way; the sales during the month have been by private only, say 35 Bds. 61. for Sheet Harbor, 47 1x 3d. for Halifax, and 47 2x 61. for St. John, and for the new season

shipment, contracts have been made at from 5s. to 10s. per standard below last spring prices, say £6 17s. 6d. @ £7 for Miramichi, £6 15s. for Shelburne, and £6 5s. for other inferior shipments, all cost, freight and insurance. The stock of pine deals is light, but the demand is poor, and there will be quite sufficient for the requirements until fresh arrivals come in. Quebec pine deals have been in light demand, consumption having reached but 437 standards, against 1,650 standards at same time last year, and the stock remains very heavy, viz.: 10,088 standards against 4,033 standards; sales have been by private only. Quebec pine and West India staves are now in fair request, but no sales are reported. Palings and lath-wood are quiet, and no sales have been reported.

Irish Markets.

The Irish Times says that there is a better tone in the timber market this week, though but little actual improvement in business can be recorded. The transactions in timber are confined to the supply of urgent wants for immediate consumption, save in a few exceptional cases where merchants in the country, knowing that with any increased demand prices will be higher, have taken advantage of the present low rates to buy some stock for future requirements. The disposition of holders, however, is not to look far ahead at current prices:—

Table listing Irish market prices for various timber types: St. John and Miramichi deals; 1st Quebec deals; 2nd do; 3rd do; 4th do; White Norway flooring; Oak; Ash; Elm; Birch; Red pine; Yellow pine; Board pine; Pitch pine; Menum, fair sized; do under sized.

The capacity of Beatty's mill, Parry Sound, Ont., will be nearly doubled for this season's work.

Advertisements.

Wanted.

A SECOND HAND DOUBLE EDGER; also a LATH MACHINE, both in good repair. Reply stating lowest cash terms or particulars to Box 1002, Peterborough, Ont.

For Sale.

A 40 INCH LEFFELL WHEEL and COMPLETE CIRCUIT LATH RIG, all in good order, suitable for a fifteen foot head. Apply to Box 1002, Peterborough, Ont.

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WHOLESALE LUMBER DEALERS. Lumber, lath, shingles, &c. Car lots to suit customers. Best Culls in the market at from \$6 to \$7 per M. Office on Dock—Esplanade, foot of Shelburne Street, Toronto. 615

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FOR SALE, 1200 ACRES HARDWOOD TIMBER LAND near Shipping Railway, Cobowick. Easy terms. OSIIAWA CABINET CO., Oshawa. 613

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SEVERAL MOST VALUABLE TIMBER LIMITS on North Shore of Lake Huron. For particulars apply to THOS. SHORTISS, Imperial Bank Building, Toronto. 612

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A Book keeper of first class experience desires a situation with a lumber firm. An opportunity of acquiring knowledge of the lumber trade more of an object than the amount of salary. For additional references both as to character and ability apply to the Editor of THE CANADA LUMBERMAN. 615

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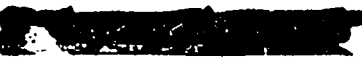
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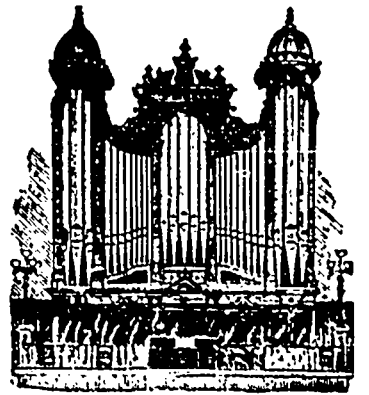
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Two Planers for sale or exchange for a Boiler. 123



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Manufacturer of all kinds of Lacquered and Enamelled
Woodwork, Turning and Carving in
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If you are particularly requested, in ordering, to mention this paper. 113

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Travellers by Northern Railway have 15 to 20 minutes by all trains, for refreshments. Solid meals. Tea and coffee at counter. Fine brands of Liquors and choice Cigars. 117 E. S. MEERING, Proprietor.

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Is noted for its superior home-like comforts—a well kept table, equalling the best hotels in Toronto, and large, well furnished rooms. Good sample rooms on ground floor. Walton Street, Port Hope. 121 WM. MACKIE, Proprietor.

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THE RUSSELL HOTEL CO., Proprietors.
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JOHN HIGGINS, Proprietor. The proprietor (late of Georgetown) having lately purchased the above hotel, will endeavor to make it one of the best houses in the District of Muskoka. Tourists and hunting parties will receive every possible attention. Free bus to and from Steamboat wharf. Terms, \$1 per day. 120

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Orders sent to M. BRENNEN, Tago, P. O., will receive prompt attention. 115

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Walkerville, Ont., Dec., 1880. 115

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JAN. A. GOVIN, PROPRIETOR.
Is the Favourite Resort of Leading Public men of the Dominion attending the annual Session of Parliament.

Ministers of the Crown, Senators, Members of Parliament, Public Officials, as well as those having business with the various Departments of the Government. It is also the headquarters of those having dealings with the princely Lumber Manufacturers in the Great Pine Valley, of which Ottawa is the acknowledged centre. THE RUSSELL HOUSE being central, almost abutting on the magnificent PARLIAMENT and DEPARTMENTAL BUILDINGS—the pride of the Country—is thus conveniently situated for those visiting the City on public business. But the location is also everything that could be desired alike for the man of business and the man of pleasure. A few minutes walk brings the guest of the Hotel within reach, not only of all the principal business resorts, but also of the most splendid Mountain and Valley Scenery that can be seen anywhere, as also of the two almost unrivalled Waterfalls—the Claudiere and Rideau—and of the extensive Manufacturing Establishments and Depots of the leading Lumberman. But, besides the beautiful scenery, which, it may be mentioned, includes the magnificent Ottawa and two of its grand tributaries—the Rideau and Gatineau—there are in the immediate neighborhood, beautiful Lakes and apparently never-ending woods, which afford opportunities for the finest Fishing and Shooting that can be obtained on the Continent.

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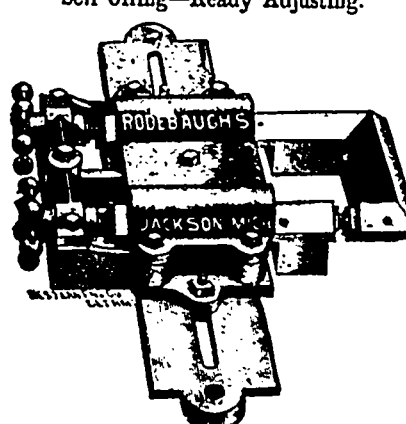


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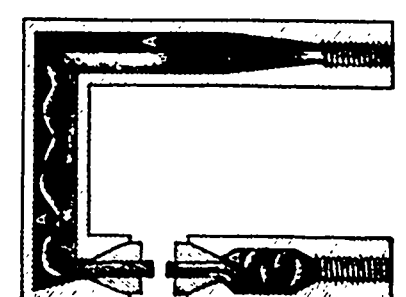
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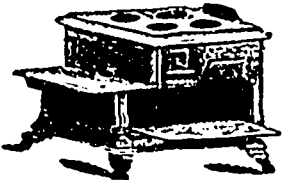
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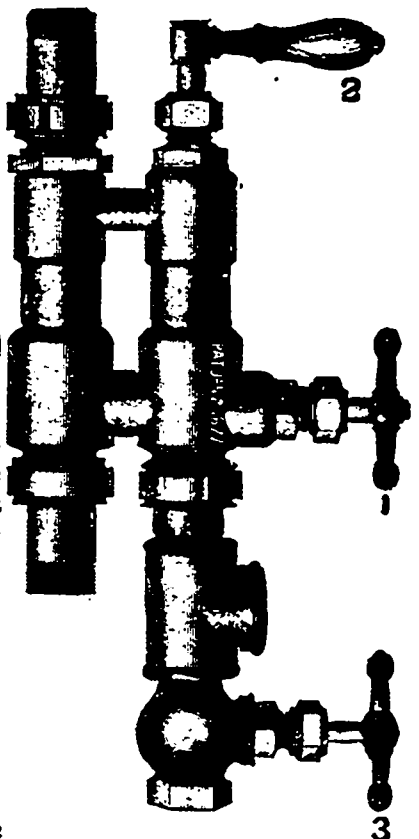
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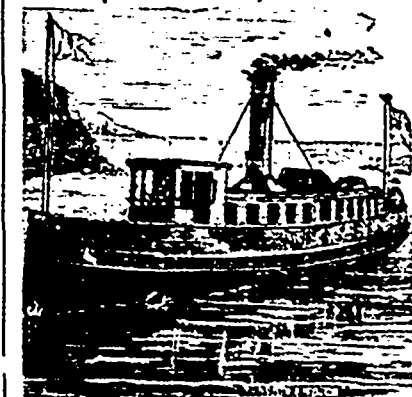
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One man and two boys can turn out

One Hundred and Fifty First-class Flour Barrels in Ten Hours,

made from veneered wood of two thicknesses. The inside is one solid sheet of veneer running around the barrel, making in reality one hoop from top to bottom, and in the outside thickness the grain is reversed, running up and down, finished with five hoops two inches wide, reversed again, making the barrel almost three thicknesses, which gives the package superior strength, tightness and durability over the ordinary hand-made flour barrels, yet with all its many advantages cost less than the old style of package. My barrel machine is arranged to make all sized packages from a large barrel down to small nail kegs, butter packages and cheese boxes. I am open to prove at any time the superior strength of my barrel. That one will stand more hardship by any actual test than one hundred of the old ordinary flour barrels. County rights for sale, and all information given by applying to

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For Lubricating
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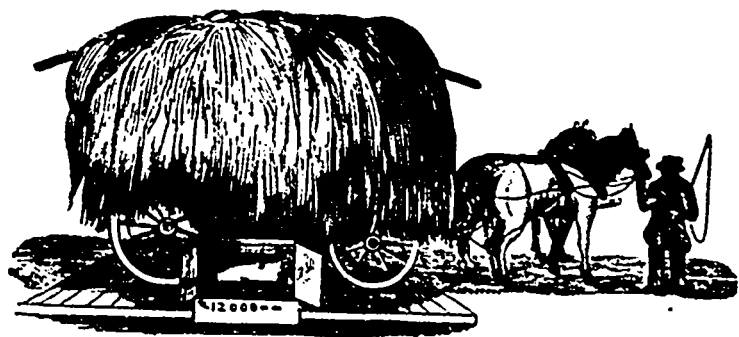
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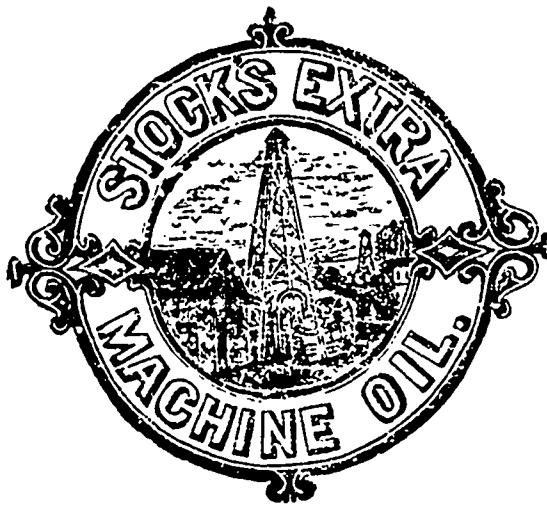
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Wholesale Supply Depot at Bracebridge,

WHERE EVERYTHING IN THE SHAPE OF

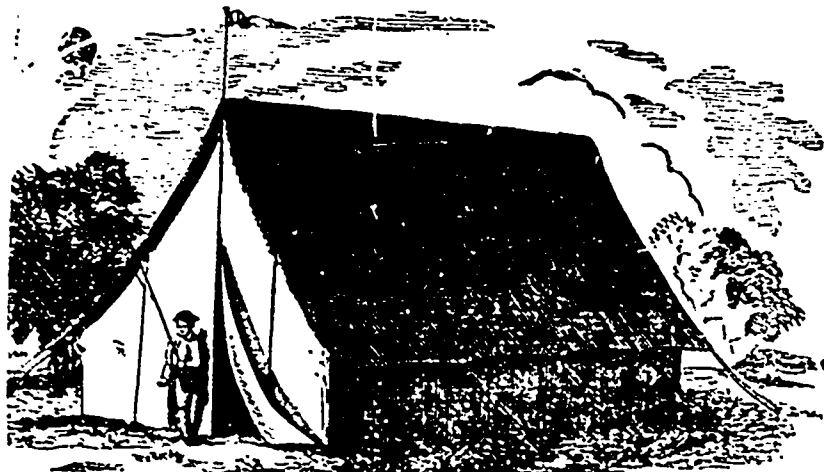
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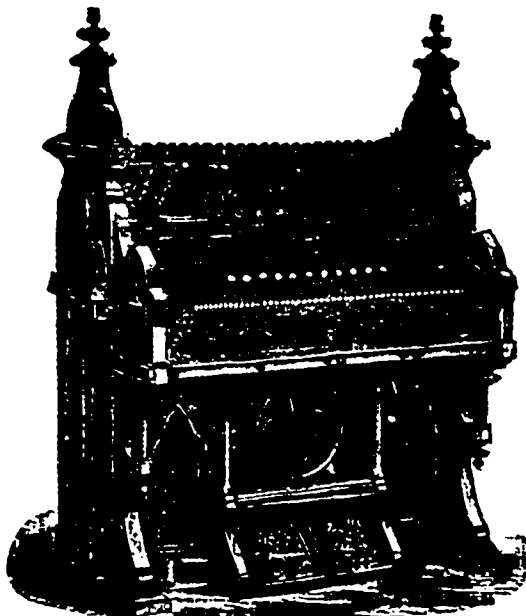
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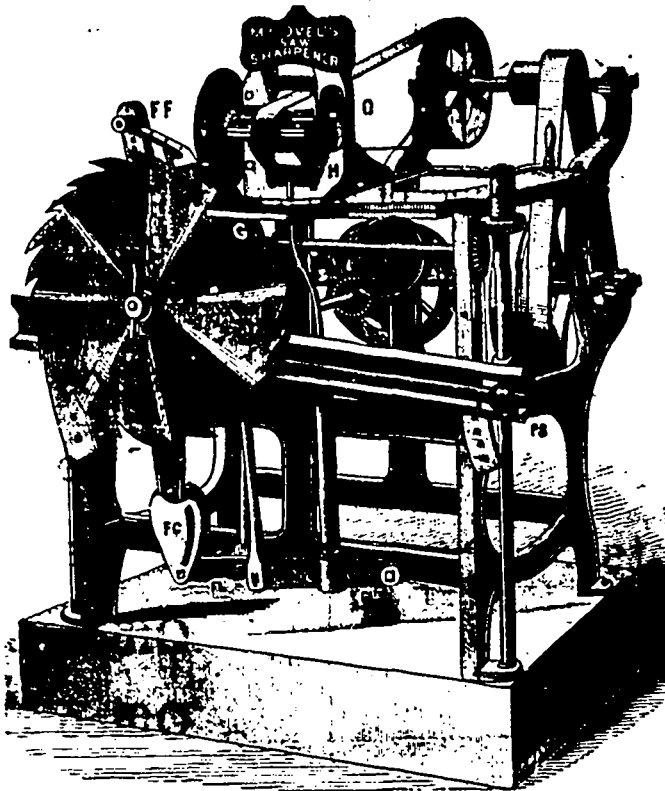
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M. Covel's Latest Improved Automatic Saw Sharpener!

Is the Most Perfect Machine that has ever been Introduced into Mills for that purpose.

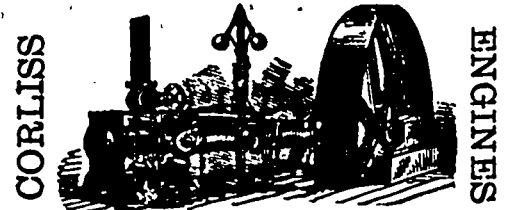
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I would also call special attention to my Heavy Circular Saw Mills

and for STEAM MILLS, would recommend the Steam Feed, having put in several which are giving the best of satisfaction, as will be seen by the following testimonials.

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Lumberman, Gravenhurst.

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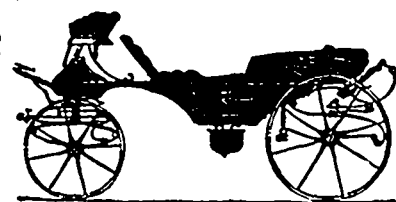
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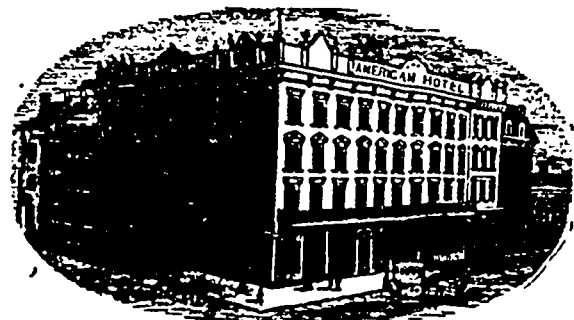
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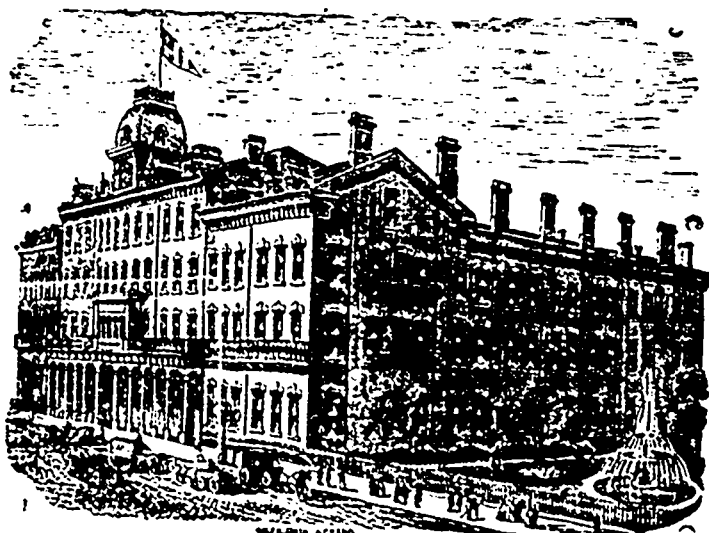
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