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VOL. 2.

PETERBOROUGH, ONT., MAY 15, 1882.

NO. 10.

PRESERVING THE FORESTS.

At the first day's session of the Forestry Congress at Cincinnati a letter of some length was received from Richard von Steuben, the Royal Chief Forester of the German Empire. After expressing his sincere regrets at not being able to accept the invitation to be present, the writer said:—"There can be no doubt that every country requires a certain quantity of well-stocked woods, not only to supply the demands for building material and fuel, but more especially to secure suitable meteorological conditions, preserve the fertility of the soil, and out of sanitary considerations. The ratio of the minimum quantity and judicious local distribution of the indispensable forest to the aggregate area cannot be expressed by a universal rule, but the same can only be approximated by scientific investigation. Above all things, it is essential to prevent forest destruction where such would injuriously affect the fertility of the soil. It is important to preserve and to cultivate judiciously those forests which stand at the head-waters and on the banks of the largest streams, because through their indiscriminate destruction fluctuations in the stage of water, sand-bars, and inundations of arable lands are occasioned. In Germany, and especially in my more narrowly bounded fatherland, Prussia, it is regarded as of the greatest importance, not only to preserve the forests already there, but to extend them as much as possible. In the national appropriation bill, large sums are set apart for the purchase of such lands as are unfit for cultivation and for utilizing them in planting trees. In the German Empire 25.7 per centum of the aggregate area is occupied by forests. In Prussia the per centage of wooded land is 23.4 per centum of the entire area. Of the Prussian forests about one-third belong to the State, which produce a gross income of about 25,000,000 marks.

"The Government foresters," continues the letter, "come within the province of the Minister of Agriculture and Forests. At the head of this department is the chief master of the forests. In each Governmental district is one forest-master, who serves as a member of the Governmental commission, and the entire forest area is divided into 680 principal forest districts. The forest government is devised with the minutest detail, and may well lay claim to being termed exemplary. It strives not only to utilize the forest as a source of income, but the Government forests are used to continually satisfy the requirements of the country. In order to obtain a situation as Government officer of the forests, a course of study of several years at the Forest Academy is required, after which follows about ten years' preparatory service before a definite engagement can be made, the qualifications for which must be proved by several examinations. Even for the minor positions in the Forestry Department, several years' apprenticeship and

considerable preparatory service connected with the military service in the hunters' corps and two examinations are required. Besides the real Government forests, there are the forests of the Faithful Royal Veterans, Community Forests, Corporation Forests, &c." After explaining the Prussian and German laws relative to the clearing of timber land, the Royal Forester says: "It is evident that these Prussian regulations are not all applicable to the United States, as circumstances are so entirely different there. Unfortunately I am not sufficiently familiar with them to venture an opinion as to judicious measures to be taken for the protection of the forests, and it would have given me great pleasure to have informed myself on the grounds, and to have taken part in the deliberations. I trust you will grant me the favor to inform me of the result of your sessions, and consider me always ready to give all desired information concerning our forest arrangements."

"READY MADE" DWELLINGS.

A gentleman in Ottawa, Ont., has entered into a speculation which might profitably be taken advantage of in this region. It is nothing else than the construction of wooden dwelling houses in sections all ready to be put in position in readiness for occupancy. These houses being built at Ottawa, are intended for Winnipeg and other places in Manitoba, where they are to be transported on flat cars. Some of them are to be sold, and some of them are owned by the builder, who intends when they reach their destination to rent them as a speculation. The buildings are to be built in a substantial manner in sections to fit flat cars, and with a special view to being easily put together when they arrive at their destination. It is calculated that two or three men will be able to put one of these buildings together in a couple of days, which when erected, will be large enough for an ordinary family. The size projected by the gentleman who is entering into the speculation, as being most desirable and most convenient for transportation is 18x22 feet for the main building and a kitchen attached about 14 feet square. We can see no reason why this could not be made a profitable business investment in this vicinity. Lumber could certainly be procured at first cost, and the manufactured buildings could be loaded here for shipment to any portion of the great west. It is well known that buildings have and are being erected in some of the western territories, which are barren of native timber, from lumber procured at Chicago, which city gets a large proportion of its stock from the city and other portions of Michigan. As the buildings of the size alluded to could be built in sections, here, by machinery much cheaper than they could be constructed by hand from the rough, at the point of destination, and as the transportation

of the completed building would cost much less than the rough material from which it is built, a project of the kind alluded to seems quite feasible, and could be made a paying business, from the fact that there would be no lack of demand at the points for which they would be intended. But the business would not be confined simply to supplying the territories into which lumber has to be imported, but a demand would undoubtedly spring up for them even in the thickly wooded countries all along the lines of the different railroads, because of their adaptability and cheapness, especially in cases where farmers adjacent to the lines of railroad reach a position whereby they are enabled to supersede their log huts of the pioneer days with something more convenient and attractive. The project is at least worthy of consideration by parties who have idle capital and are seeking an investment of the same, as it would not only furnish the investment sought, but probably a profitable source of employment. — *Lumberman's Gazette.*

RELATION OF FIRES TO THE WEATHER.

A recent issue of the *Chronicle* discusses from an insurance point of view the probable influence of atmospheric conditions upon fire losses, the main factor considered being humidity. The discussion, which is a very suggestive, not to say important one, is not confined to the generally recognized increase in local fires during specially protracted seasons of dry weather, but seeks rather to discover the broader relations of general rainfall throughout the United States, and the observed fluctuations in the aggregate fire losses, year by year and month by month. "Assuming that the human hazard is a constant, and that the difference of states in respect to architecture and industry has been reduced by the law of average also to a constant, what is left to explain the increased or diminished aggregate fire loss of one year over previous years unless it be some meteorological peculiarity?"

Taking the statement of the precipitation, month by month, during the year ending with June, 1879, compared with the average for several previous years, as given in the last published report of the Chief Signal Officer of the United States, and using it as a basis of comparison with the fire losses in the same month of the two previous years, the *Chronicle* finds that an excess of humidity is steadily followed by a decrease in the fire loss, and a deficiency by a corresponding increase in the fire loss.

The same relation between rainfall and fire loss is strongly indicated in tables showing the periods of greatest and least fire loss in California, where the contrast between the wet and the dry season is so sharply drawn. Notwithstanding the fact that the wet months cover the season—the California winter—when domestic fires are most employed, thereby increasing the

relative fire hazard, the monthly mean of fire loss for the wet season is only about half that of the dry season.

From these and other tests the *Chronicle* deduces the following conclusions:—

(1) That there is an interdependence between the humidity and the fire loss; 2 that whatever affects the rainfall, such as the destruction of forests, etc., will affect the fire loss; (3) that there is a factor in the shape of an atmospheric hazard that should enter into the underwriter's calculations quite as well as the other elements of "moral" hazard, etc.; (4) that there are localities peculiarly adapted by meteorological conditions to a high ratio of fire loss; (5) that this natural hazard should determine, as nearly as practicable, the architecture of such localities, their means of fire protection, and the proper rate of premium for risks there written.

FORESTRY ASSOCIATION.

An interesting announcement comes from Cincinnati that the next meeting of the American Forestry Association will be in Montreal in August next. We presume this will be in connection with the meeting of the Scientific Association. It is to be hoped, however, that the benefit of this important gathering will not be lost in the shadow of the larger organization. To make the event mark a new era in the regard of Canadians for their forest wealth, an exceedingly desirable result, some preparations should be made for it. On the return of the Canadian delegates from the present session of the Congress at Cincinnati, it will be in order to consider what form organized movement to this end should take. It might be a good plan to call a meeting of all interested in the matter to hear the delegates give a report of the session. By holding the meeting in Ottawa, and inviting members of both Houses of Parliament to attend it, a movement might be inaugurated all over the Dominion without very much trouble or expense. — *Montreal Witness.*

WOOD UTILIZED.

The Northwestern *Lumberman* says the ways by which wood is utilized in Maine and other New England States should teach the owners of hardwood timber in the Northwest that they have more wealth in their standing trees than they can afford to burn up in log-heaps, if they will only wait a few years till the car of progress comes along, and brings the capital, the genius and the tools. The following little mention shows one of the ways by which white birch can be turned into money. Richmond, Thompson & Co., at Jay, Franklin county, manufacture druggists' boxes of white birch, and a local report states that they now have on hand 1,800 cords of that wood which will be made up into this kind of packages. The same firm makes advertising fan-handles at the rate of 100,000 a week.

OTTAWA RIVER TOLLS.

TARIFF OF TOLLS TO BE LEVIED ON TIMBER, SAW-LOGS, &c., PASSING THROUGH THE GOVERNMENT IDES AND WORKS UPON THE OTTAWA AND ITS TRIBUTARIES.

Name of River.	Name of Slide or other Improvement.	Per Slide or Improvement.				Rate to Clear to foot of Chaudiere.		Round, Flatted and Dimension Timber. Also Railway Ties.	Special Rates.
		Red Pine, White Pine or Hardwood.		Masts, Slaves or Sawm Lumber, per crib.	Red Pine, White Pine or Hardwood.	Masts, Slaves or Sawm Lumber, per crib.			
		Per Saw Log.	Per Stick.				Per Crib.		
Ottawa	For passing through—								
"	Slides at Roche Capitaine			1 00		1 50		Where no special rate is given for saw logs passing through Government improvements the tolls for Sidage or Boomage are to be levied on sixty saw logs as equivalent to a crib of square timber.	
"	" St. Joachim Rapids			1 00	1 50	2 50	4 50		
"	" Calumet and Mountain Rapids			1 00	1 50	2 50	3 50		
"	" Portage-du-Fort			0 50	0 75	1 75	2 25		
"	" Chats			1 00	1 50	1 50	2 00		
"	" Chaudiere			1 00	1 50	1 00	1 50		
"	Chonaux Boom			1 1/2 ct., less 1-5 to millowner					
"	Chaudiere Boom			0 02					
"	Carillon Dam			0 02	0 75	1 00			
Petowawa	Passing dams, piers and booms between Cedar Lake and Memo Rapids			0 01	0 75	1 00			
"	Slide near Lake Traverse			0 01	0 03				
"	Slides between Lake Traverse and Trout Lake			1-60th of respective crib rate.	1 00				
"	Crooked Chute to Ottawa River			1 25		4 25			
"	Bois Dur to Ottawa River			1 25		3 75			
Madawaska	Ragged Chute and High Falls slide and improvements			0 03 1/2	2 00	2 50	4 50		
"	Improvements below High Falls to Arnprior			0 01 1/2	0 50	0 75	2 00		
"	Slide at Arnprior			0 50	0 75	1 75	2 25		
Dumoine	Retaining booms and piers in Chats Lake at mouth of River			0 01	0 25	0 40			
"	High Falls slide to River Ottawa			0 01 1/2	0 15				
"	Below High Falls (Lower Improvements)				0 75				
Coulonga	Slide at High Falls			0 02	1 50	2 00			
Black River	Slides at Black River			0 02	1 00	1 50			
Gatineau	Booms			0 02	0 06				

PRIVY COUNCIL OFFICE, Ottawa, 3rd May, 1882.

THE GEORGIAN BAY.

A special correspondent of the Toronto Mail writes from Midland as follows

On the west side of the bay is P. W. McLeod's mill (formerly Tait's). He will bring the lumber and dimension stuff sawn at his mill across to the railway platform in the steam scow Pochontas. A new mill is being built near this terminal platform for the British Canadian Lumber Company. The building is 52 x 140 feet; boiler house, 35 x 54 feet; five boilers, two engines, 18 x 24 cylinder, 180 horse-power. The cutting capacity of the mill is estimated at 75,000 feet per day. No burner will be erected at present, as the waste material will be required for two years to fill up around the mill and level the piling ground.

It will be finished about the middle of May, will have two circulars—cost about \$25,000. Another mill is to be built near the same site, also for the British Canadian Lumber Company, for cedar ties, cedar shingles, and posts. This mill is calculated to cut 2,000 ties per day; cost about \$6,000. Further on, past the elevator, is Chew Bros. grist and shingle mill; next, H. H. Cook's mills, rebuilt. An engineer was taking a survey of the premises for the purpose of making a plan to send to Scotland for the inspection of the directors of the British Canadian Lumber Company. John Dollar's mills come next, outside the city limits. Then, near the old fort, on the river Wye, another mill belonging to the British Canadian Lumber Company. This firm will take out this season about thirty eight million feet. At Victoria harbor, still further east, are Power's mills; also John McDermott's; also the mills of Messrs. A. Cain, P. Christie, and W. Tanner before reaching Waubasheno. The Waubasheno mills, which were burned in August last, are being rebuilt, and will, when completed, be better than the former mills. The main building is 126 x 70 feet, with fire-room 16 x 30 feet, and latrine-room 20 x 60 additional. The engine-room is 20 x 32 feet, and the boiler-house 38 x 41—both the latter stone and brickwork. The burner for waste material is combined with the smoke stack by a smoke-box from the boiler-house. The burner is of iron plate 28 feet in diameter by 12 1/2 feet high, with a hood of wire-work 15 feet high. The machinery, which is manufactured by Mr. W. Hamilton, of Peterborough, consists of one circular saw, one slabbing gang, one large flat gang, one patent span circular, which expands to size of log, from 7 inches to 26, worked by steam feed, a small slab gang, two edgers, two trimmers, and lath mill.

The whole is driven by two engines, with four steel boilers, equal to 350 horse-power, made by Thomas Wilson, of Dundas. The work is under the superintendence of Mr. J. C. Else, who has been foreman at the mills for eleven years. The mill will be one of the most complete and extensive in the country, and will cost about \$90,000 when finished. After leaving Waubasheno, Fossiston mills are passed—next Josiah Cain's, stock 4 1/2 million shingles, and J. Campbell, also about 4 1/2 million shingles. At Coldwater are H. Lovening's shingle mill, stock 5 million shingles; J. Brown do., 3 million; John Green saw and shingles, on North river, 3 1/2 million shingles and 1 million lumber; J. Smith, on Coldwater river, 2 million shingles; Messrs. Wylie & Tait, three miles east from Coldwater, on the Midland Railway, stock 2 million shingles; James Hadden, five miles from Coldwater, gang and circular, 2 million lumber; Thos. Overend, Uhtoff, seven miles west of Orillia, 2 million shingles; Tasker & Lakus, 3 miles from Uhtoff, 1 million feet. Andrew Tait is a large operator in Orillia in sawed lumber and shingles; the Oro Lumber Manufacturing Co., also have a new mill at Orillia. Railroad facilities have developed an immense trade in lumber and shingles in this section of the country, and utilized a large amount of timber which would otherwise have gone to waste. Mr. Crossin's railroad car manufactory at Cobourg is largely supplied with car sills, and oak and maple dimension stuff from Midland. An excellent quality of oak is obtained in that region. The traffic over the Midland Railway in 1881 was:—Lumber, 104,461,000 feet; timber 739,341 cubic feet, shingles, 63,318,000; posts and ties, 698 car-loads; firewood, 370 cords; wheat, 443,388 bushels, flour, 25,351 barrels; other goods, making a total weight of 237,845 tons. The total earnings for the year 1881 amounted to \$404,360, being an increase of \$57,925 over those of 1880. The traffic for 1882 will show a very much larger increase.

FOREST MANAGEMENT.

At the Forestry Convention held in Cincinnati recently one of the papers read was submitted by Prof. Brown, of the Ontario Agricultural College, Guelph, and was exceedingly well received. A summary of it as follows appears in the Globe.

In South Australia the Government, under its Woods and Forests Board, have begun the conservation and replanting of the country most vigorously. In 1878 they passed "The Forest Tree Act" with special reference to the encour-

agement of tree planting. By its provisions the Governor can proclaim parts of the country to be "forest districts" for the purpose of inclosing and planting. A bonus of ten dollars per acre is given to owners for successful establishment of clumps during two years, not less than five acres, and if in strips, not less than 100 feet wide. A Conservator of Forests has been appointed. In five years they have enclosed and planted 2,617 acres at a cost of \$100,000. The success is most gratifying. Seeds are collected; a number of nurseries are kept at convenient points; they have an experimental department; the various methods of seeding broadcast and in rows, of regular planting at various distances apart, and by natural reproduction. Weather records are kept; much of the success is attributed to the thorough use of the plough and cultivator; plants are given to owners of lands on certain conditions; several arboretums are being established; thinning and pruning are systematically attended to; "fire breaks" are ploughed in proper season; and last year the Government distributed free to settlers a treatise on tree cultivation, got up by the Conservator, and their annual report is very interesting and valuable.

I have pleasure in laying on the table a copy of the Conservator's latest report and his Treatise on Tree Cultivation.

AN EXAMPLE OF REVENUE FROM SCOTCH PLANTATIONS.

There is always some value to be gathered from the experience of others, even when conditions differ very much, and while Scotland will compare favorably with it, America as regards moisture, being propitious for the life of certain kinds, it can not do so with reference to rapid growth through climatic and soil conditions.

The writer had the management for ten years of a Highland property extending to 135,000 acres, which embraced every possible condition of plant and animal life, from good wheat production up, or down, to the lowest form of lichen, four thousand feet above sea level.

I have often thought that were the Americans aware by actual personal experience of the difficulties that surround most branches of British rural economy there would be less quarrelling and more stay at home amongst us.

The cultivation of trees in Britain, while a matter of mark in her history, has been, and still is, one of expense, and the knowing how to labor and to wait.

In Scotland, especially, the re-planting has been very extensive and successful. Land that fetched only 8d an acre for sheep grazing, or 1s

for a deer forest, has been, under skill and capital, brought to produce a clear annual revenue of fifteen times these amounts—by tree crops.

Beginning in 1855 I planted annually, on an average, for fourteen years, one and a half million larch and Scotch pine, among the heather and granite of Banff and Aberdeen shire.

Our process was simply to enclose with wire fence from three hundred to one thousand acres, in districts where direct shelter, ornament, and climatic amelioration, with the best chances of economic results, were necessary and most likely to be secured. Drainage was thoroughly done where required. Planting carried out by day labour, never by contract, under skilled foremen, one man, under average conditions as to soil and size of plants, notching as many as one thousand a day. Trees were sized according to height and exposure of the ground, and not less than three thousand per acre—aiming at four feet apart all over. Pitting was necessary only with the larger hard and Scotch pine, or with hardwoods. We always had the best success with small plants, seedlings, with conifers on the exposed parts, and not more than two years transplanted in any case.

Thus the Highlands of Scotland are to-day in possession of many thousands of acres, producing a handsome revenue that twenty years ago made a poor show on the rent rolls; average cost, £3 ls. per acre. I submit a printed statement of six years' revenue from the older plantations of a highland property.

The above was illustrated with a printed table, many copies of which were on hand. The same gentleman also read a short tract containing "Suggestions concerning a Text-book on Forestry," presenting with it the table of contents printed, such as he thought it should have.

Worth Mentioning.

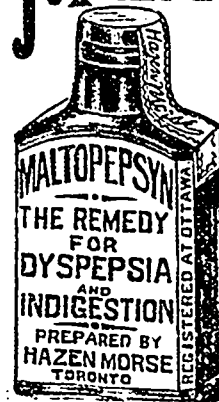
When anything worth saying is spoken in that terse and pointed way that bears the impress of honest conviction, we like to have people know the nature of the communication. Of such a nature is the following from Mr. W. F. Haist, Camden P. O., Lincoln Co., Ontario. Mr. Haist says: "With great joy over my restored health, I would write a few lines concerning that wonderful remedy, St. Jacobs Oil. For the last six years I have been using various medicines internally and externally, but nothing would help me. Finally I procured a bottle of St. Jacobs Oil, which cured me after a few applications. My mother-in-law, who has also been a great sufferer from rheumatism, was also relieved by the use of the Great German Remedy. St. Jacobs Oil is a great blessing to suffering humanity, and I shall do everything in my power to make known its merits."

HOW TO MANAGE THE MISSISSIPPI.

The distinguished German engineer and traveller, named Chevalier Ernst Von Hesse Wartegg, has been making extraordinary suggestions about the Mississippi river inundations. He says that levees on the Mississippi river will be money thrown away, and that the \$100,000,000 already spent in that way has been totally ineffective. He says the way to make the Mississippi behave is to help it in the effort it is making to shorten itself toward the Gulf. In 1721 the distance from Cairo to New Orleans was 1,216 miles, and to-day it is 240 miles less than that, or only 974 miles. He says Red River ought to be drawn off from the Mississippi, and allowed to run to the gulf through the Calcasieu river, which would be only 80 miles, instead of 500 miles it has to pass through to the Mississippi. Both the Ohio and the Red river are a barrier to the rapid current of the Mississippi. The Wachita ought to be connected with the Atchafalaya, and let off to the Gulf that way, instead of embarrassing the Mississippi. The Mississippi itself ought to be connected with Lake Borgne, as proposed by Captain Cowden, which would draw off one-tenth of the whole body of water. He says that the River Po, in Italy, which has magnificent levees, is regularly inundated, and that the tendency of these levees is to raise the bed of the river by depositions in it; so that the Po, the Mississippi and many other streams with artificial banks really run on a high ridge of land, from which they inevitably overflow the surrounding country. He says levees from Cairo to New Orleans would cost \$100,000,000, and would meet with the same fate as the others, and that artificial means cannot keep the tremendous river within bounds, and the only way to do it is to aid nature to find the straightest way to the gulf.—*Northwestern Lumberman.*

The Canadian supply of hemlock bids fair to become an interesting question in the States. The oak forests supplying American tanneries are principally in Tennessee, Kentucky, and in Northern Alabama and Georgia. Large quantities are also imported from Canada. Forty or fifty years ago all the hemlock tanbark used there was taken from the forests in central and northern New York. The supply there has been exhausted, and the raw material is now sought for further west. This tree does not perpetuate itself, as does the oak, and the destruction of a tree represents an absolute curtailment of the available supply. If the plan to compress and export oak tanbark proves successful, it is highly probable that the inroads which will be made upon the southern oak forests will reopen the question of their ability to reproduce fast enough to hold their own against the demands of commerce.

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Two doses (30 grains) of Maltopepsyn will digest the entire white of a hard boiled egg in a bottle of water, in from 3 to 4 hours. How much more will it digest in the stomach assisted by that organ? About twenty times the quantity.

Test this for yourselves,—it is an interesting and useful experiment.

Get from your druggist ten drops of Hydrochloric Acid in a four ounce bottle, fill bottle half full of tepid water (distilled water is best, though soft water will do), then add the finely cut white of a hard boiled egg, then add two doses (30 grains) of Maltopepsyn and shake bottle thoroughly every 15 or 20 minutes, keep the bottle warm, as near the temperature of the body (98° Fahrenheit) as possible, and in 3 to 4 hours the egg will be entirely dissolved or digested.

Maltopepsyn is endorsed by the leading Physicians and Chemists throughout the Dominion of Canada.

Send for Pamphlet, 24 pages, giving full treatment of Dyspepsia with the rules of Diet, etc., mailed free upon application by HAZEN MORSE, TORONTO.

Price per bottle, with dose measure attached, 50 cents, contains 48 doses or about one cent per dose.

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TELEGRAPH LINES.
SELKIRK TO EDMONTON.
NOTICE.

SEALED TENDERS will be received by the undersigned up to Noon on WEDNESDAY, the 15th day of May next, in a lump sum, for the purchase of the Government Telegraph Line (embracing the Poles, Wires, Insulators and Instruments), between Selkirk and Edmonton.

The conditions to be that a line of telegraph communication is to be kept up between Winnipeg, Humbolt, Battleford and Edmonton, and that Government messages be transmitted free of charge.

The parties tendering must name, in addition to the lump sum they are prepared to give for the telegraph line, the maximum rate of charges for the transmission of messages to the public.

F BRAUN,
Secretary
Dept. of Railway Affairs,
Ottawa, 18th Feb., 1882.

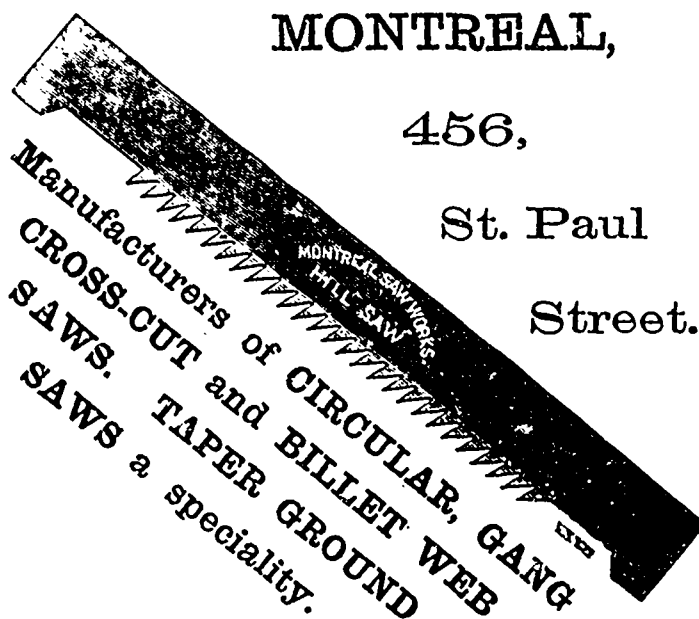
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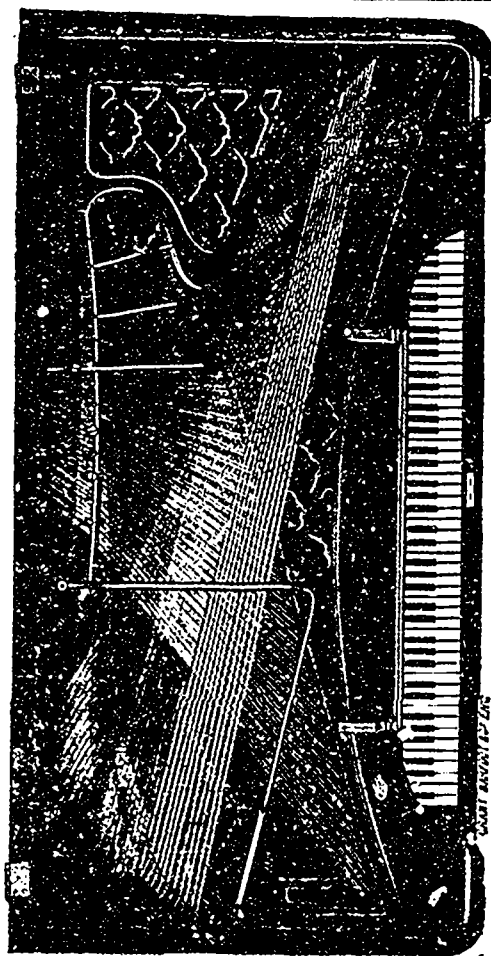


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THE DESTRUCTION OF FORESTS.

The remark is made by a Texas newspaper that "one of the strongest arguments in favor of preserving forests is to be found in Chinese history. The terrible famine which raged in that country several years ago, was brought about by the destruction of the few forests left standing, thereby rendering it impossible for the soil to retain the little rain that fell from time to time."

Notwithstanding the scientific theory and facts involved, the destruction of trees continues in many sections where this element of protection is largely lacking, without much concerted effort toward reforesting the land, and it is not the manufacture of lumber that relieves the country of timber so much as the reckless slaughter of trees that is made in wooded regions for the purpose of clearing lands, and where the timber is burned up or disposed of wastefully. Since the forests must continue to be drawn upon for lumber supplies to answer to a necessary want universally felt, whatever timber is willfully destroyed and diverted from the channel of lumber manufacture, with no object beyond getting it out of the way, will produce that much shortage in the reserve supply of timber, and the conquest of the saw mills will simply be hastened to an earlier consummation. While it is a fact that trees serve one of nature's offices in permitting moisture to be readily retained in the soil, and are naturally a necessity in many ways, it is still true that so far as the question of lumber goes, the exhaustion of the tree supply of the world would be less felt in the latter direction than in any other. When it comes to a matter of absolute necessity, a substitute could be found for lumber in nearly every line of its use, if not all of them, but the natural advantages to land accruing from forests, can, in no other way, be secured. Hence the proposition of the lumber needs of a country is almost the smallest argument in favor of forestry projects for retimbering localities. One of the best moves that could be made would be to inaugurate a more practical government policy than is now in operation to prevent a wrong use of timber and its reckless destruction, a move fully as important as that land pre-emptors should be required to conform to the tree-planting law; for while in the one case much care, effort and time is required to grow forests, in the other case they are already grown, and it is only necessary to properly husband the supplies. Preventing the destruction of trees to-day is an act performing the same service that age would accomplish, for trees don't grow with the same celerity as garden vegetables. Prevention is better in this case than raising small trees for transplanting.—*Northwestern Lumberman.*

A STEAMSHIP WITH A CARGO OF SQUARE TIMBER.

The *Timber Trades Journal* says the most novel feature of the present year in regard to the wood carrying trade is probably the arrival here of a large, well-appointed steamship from Pensacola with a complete cargo of pitch pine timber.

The question not unnaturally suggests itself, can vessels of this character be profitably employed in bringing timber in large logs? The *Deepdale*—for so the vessel we refer to is called—belonging to Sunderland, arrived in the Surrey Commercial Docks on Saturday last, after a very protracted voyage from West Florida. Running short of fuel she had to call at Halifax on her homeward voyage, to coal, a proceeding which took her considerably out of her course. It is true that this delay had nothing to do with the description of the cargo she had on board; but, judging from other circumstances, it is evident that, as steamships are at present constructed, timber in large logs will not pay as a freight. Cargoes, as in this case, of vast timber and deals may be carried when a ship of the kind finds herself a timber port with no other freight to load home, and it becomes a question of loading by "stow" or taking what the port offers in the way of merchandise, which was most likely the condition of affairs with regard to the *Deepdale*. But that log timber will become a recognized freight for steamships is, we imagine, a long way from accomplishment yet. We understand this ves-

sel was three weeks loading at Pensacola, working the fore and aft hatches; taking the logs aboard piece by piece, and we can hardly imagine that she could accomplish her task any quicker, for in the Surrey Commercial Docks, where every facility is afforded for quick discharge at the rate of a piece a minute, the authorities expect to take quite a week to empty this vessel's hold. We watched the *Deepdale* discharging as she lay in the middle of Canada Dock, and reckoned that the pieces being hoisted out of the hold by a crane forward and another aft did not occupy much more than the time mentioned, and yet the process appeared tedious. The huge logs raised out of the hold by the cranes were lowered steadily on to the gunwale, and let glide into the water, and first, with a mighty splash, where they disappeared for a short time, the impetus from such a fall carrying them a considerable distance below the surface. If this simple mode of getting clear of the stuff was to take a week or more, it was evident that the task of loading and stowing logs of the kind must have been a protracted affair.

Steamers, like horses, in idleness, eat up the profits by their expensiveness, and on rapidity of taking in and discharging their cargoes depends their ability to compete with sailing ships in carrying deals. To steamers, celerity is almost a vital point, and it is the difficulty of getting hewn timber, in heavy pieces, quickly in and out, that will, we expect, keep this portion of the wood-carrying trade for a long while to come in the hands of sailing ships.

Of course bow and stern ports would make a vast difference in the way of affording better facilities for loading and discharging heavy timber, but, as most steamers are built in watertight compartments, another difficulty would be presented, though for ordinary average timber it would not seem impracticable to get it on board through bow or side ports. Until something is done in this respect, there will always be the same delay in shipping large timber down the hatchway. It is true that a crane will raise a log of a ton weight with just the same facility it will a ton of deals, but when the latter is unloosed from the slings it can be handled with ease, and distributed in the hold quickly, while on the other hand the log is just as much an obstacle when lowered into the cramped space of a steamship's hold as it was on shore.

The *Deepdale*, it is stated, is the largest steamer with a wood freight that has ever entered the Surrey Commercial Docks, and is calculated to have on board nearly 900 standards of timber of one kind and another. The number of logs of pitch pine are reckoned at something like 4,000, while she has for stowage between 2,000 and 3,000 deals, &c. The bulk of her cargo consists, however, of sawn logs of the usual full average; and one thing can be said of her, that, if she has been a long time about it, at any rate she brings a cargo equal to that of three ordinary sailing ships. That her arrival here with pitch pine logs will form a precedent in the establishment of a carrying trade by steamers of large timber we consider very unlikely.

BOARD OF TRADE RETURNS.

The *Timber Trades Journal* says:—Those who call to mind that at this time last year the Baltic and Swedish ports were still shut up with ice, and that this year many of them have been scarcely closed at all, will not be surprised to learn, from the Board of Trade returns, that the timber importations for last month are nearly double the amount of those of March in 1881. In that month the sum was 96,455 loads, in the month just passed (March) 189,371 loads, which looked as if, beginning so early, we were in the way to have an overstock by the end of the season. The excess in the first three months of 1882 over the same period in 1881 amounts, in fact, to 130,684 loads—rather formidable figures, but by no means alarming or unprecedented, for as recently as 1880 the importation up to the end of March reached the total of 629,694 loads—that is, 193,767 loads more than in 1881, and 65,183 loads more than the first quarter of the present year.

From these comparisons it will be seen that while we are naturally surpassing the fettered trade in foreign timber of last spring, we are,

with every advantage in favor of early importation, following at a modest distance the footsteps of the trade in 1880, with a palpable interval between, which precludes the likelihood of our speedily overtaking it.

We put these little calculations here to show that, "as far as we have got," as Artemus Ward would say, the importation cannot be considered in any degree excessive, and that the timber trade is therefore *prima facie* in a very satisfactory condition.

The following are the figures furnished by the Board of Trade:—

MONTH ENDED 31ST MARCH, 1882.

Timber (Hewn).	Quantity.	Value.
Russia	940	6,032
Sweden and Norway	38,410	67,407
Germany	3,702	13,231
United States	10,969	54,129
British India	9,062	126,270
British North America	466	1,359
Other Countries	29,968	36,638
Total	101,413	295,106

Timber (Sawn or Split, Planed or Dressed).	Quantity.	Value.
Russia	1,847	4,330
Sweden and Norway	51,079	182,794
British North America	9,854	26,693
Other Countries	25,078	80,647
Total	87,968	244,264

Staves (all sizes).	Quantity.	Value.
Mahogany (tons)	2,743	28,800
Total of Hewn and Sawn	189,371	530,370

THREE MONTHS ENDED 31ST MARCH, 1882.

Timber (Hewn).	Quantity.	Value.
Russia	7,164	51,520
Sweden and Norway	80,368	124,223
Germany	10,175	81,970
United States	24,073	113,837
British India	15,475	190,192
British North America	972	3,237
Other Countries	89,676	102,283
Total	237,901	693,271

Timber (Sawn or Split, Planed or Dressed).	Quantity.	Value.
Russia	18,521	43,291
Sweden and Norway	118,699	311,409
British North America	42,003	105,628
Other Countries	49,487	160,910
Total	228,610	621,138

Staves (all sizes).	Quantity.	Value.
Mahogany (tons)	6,174	57,836
Total of Hewn and Sawn	464,511	1,214,409

WOODWORK THAT WILL NOT BURN

In a London paper is published a letter from Mr. F. H. Gossage, who makes some very important statements. He says: "I find that painting woodwork of any kind with several coats of solution of silicate of soda, and finishing off with a mixture of this solution and sufficient common whiting to make it about as thick as ordinary paint, is a most excellent protection against fire. Wood treated in this way will not take fire from mere contact with flame; it requires to be heated till destructive distillation begins. Then, of course, gases are given out which ignite, and the wood is gradually converted into charcoal, but until destructive distillation takes place the coated wood will not support combustion. A few years since I had some screens made like ordinary doors, some prepared as I have described, and some not. They were then placed over a fire of shavings, which was kept constantly renewed. In ten minutes the unprepared screens were blazing away, and so nearly consumed that they had to be supported by an iron bar. The flames continued to lick the prepared screens for 30 minutes before the distillation commenced. After 45 minutes the coated screens were still intact, and able to support themselves, and in an hour, although pierced in many places with holes, they held together, and when the fire was removed they did not continue to burn. This was a splendid success, and I still have the remains of the screens. The experiments were made at my suggestion, for the managers of the Liverpool Philharmonic Society, and the woodwork of their splendid hall at Liverpool was treated in this manner. I am sure a good deal might be done with this simple and inexpensive process to reduce the possibility of fires, especially in public buildings, theatres, etc., for, if the woodwork was thus treated, draperies and scenery would burn away before the heavy timberwork of the structure would take fire."

"CUTTING THE KEY LOG."

The first thing to be done is to find out where the jam occurred, and then to discover what is called the "key log," that is to say, the log which holds the base of the "jam." An old

experienced "stream driver" is soon on the spot, for the news is soon carried up stream that there is a "jam" below. Every minute is of consequence, as logs are coming down and the "jam" increasing in strength. The "key log" being found, there is a cry for volunteers to cut it. Now, when you consider that there are some hundred big logs of timber forming a dam, and the instant the key log is cut the whole fabric comes rushing down with a crush, you will see that unless the axe-man gets instantly away he is crushed to death. There are usually in a camp plenty of men ready to volunteer: for a man who cuts a key log is looked upon by the rest of the loggers just as a soldier is by his regiment when he has done any act of bravery. The man I saw cut away a log which brought down the whole jam of logs was quite a young fellow, some twenty years of age. He stripped everything save his drawers; a strong rope was placed under his arms and a gang of smart young fellows held the end. The man shook hands with his comrades and quietly walked out on the logs, axe in hand. I do not know how the loggy-road one felt, but I shall never forget my feelings. The man was quietly walking to what very likely might be his death. At any moment the jam might break of its own accord, and also, if he cut the key log, unless he instantly got out of the way, he would be crushed by the falling timber. There was a dead silence while the keen axe was dropped with force and skill upon the pine log. Now the notch was near half through the log, one or two more blows, and a crack was heard. The men got in all the slack of rope that held the axe-man. Like many others, I rushed to help haul away the poor fellow, but to my great joy I saw him safe on the bank, certainly sadly bruised and bleeding from sundry wounds, but safe.—*The Field.*

A DIFFICULTY OVERCOME.

The Little Quinnesec falls, on the Menominee river, have for years past caused great damage to logs passing over them. The falls have a descent of 75 feet—not perpendicular, but on an angle of 45°—over a rough and ragged ledge. The damage caused to the logs has been variously estimated at from 10 to 20 per cent. The Menominee River Manufacturing Company, during the past five years, has expended upwards of \$8,000 in blasting the ledge and building breakwaters to lessen, if possible, the damage caused to the logs. Nothing that it did, however, seemed to obviate the difficulty. During the past winter the Hon. I. Stephenson conceived the idea of cutting a canal through the solid ledge along the side of the falls. The survey was made, the amount of rock to be excavated ascertained, and the probable cost estimated. The plan seemed feasible, and the board of directors of the above named company authorized Mr. Stephenson to go on and complete the canal. Work was commenced in February, and pushed with such vigor that the undertaking was near completion when the rise of the river prevented further work at present. But the canal, or cut, was so nearly finished that when the cofferdam at the head was removed, which was on April 19, it was found to work like a charm—all logs running in the river passing through the cut without any damage whatever. The cut is about 300 feet in length, 40 feet wide at the entrance, and narrowing down to 20 feet at the terminus. The average depth of the cut is about 10 feet. The cost when completed will be about \$15,000.—*Northwestern Lumberman.*

THE SUPPLY OF TIMBER.

The *Northwestern Lumberman* says the supply of cedar, while not exhaustless, is happily such as to lead to no well-grounded fear of a scarcity for many years. Vast tracts of cedar lands are to be found contiguous to the Huron shore of Michigan, while no inconsiderable quantity exists in the less settled upper peninsula. The islands of Lake Huron are many of them loaded with it, while those of the Georgian Bay, on which this timber predominates may be number by the score. One of these islands is estimated to cut no less than 50,000 telegraph poles and 500,000 railroad ties, besides innumerable posts, and is but one of the smallest islands of the bay, at that. The islands and much of the

mainland of Lake Superior are rich in their growths of cedar, vast quantities of which are found in the neighbourhood of Prince Arthur's Landing, upon the Canadian side of that lake, and can be made available for use in the vast treeless region west of Winnipeg, by means of the Canadian Pacific railroad, which of itself will prove one of the most extensive consumers of it in the building of its track for many hundreds of miles, and until the timbered lands of the Rocky Mountain range can be reached. The Michigan and Wisconsin shores of Lake Michigan may be depended upon for a wealth of cedar supply for many years, while the interior railways of Wisconsin are well located for transporting the immense quantities which grow luxuriantly in the northern part of that state.

STRAW FOR FUEL.

The Mennonites are nothing if not economical. They would have to be placed in a desolate land indeed where they could not get a living. Set a Mennonite family down on a sage brush desert and they would contrive some way to keep the wolf from the door, and thrive at that. They think it is because the good Lord is with them, but it is probable that it is because a stingy economy has quickened their instincts in the direction of making something out of next to nothing. The *American Agriculturist* says: The Mennonite immigrant, when choosing a locality, is quite unconcerned at the total absence of timber, and will settle many miles from any wood or coal, with indifference as to the fuel question, in localities where an American would never think of making a farm. He sees fuel for a year in miles of grass about him; the second and succeeding years he will have the straw from his crops, and straw stacks are his favorite substitutes for the wood pile and coal bin. We first saw straw in use for fuel in the house of a Mennonite bishop, in the colony of McPherson county, Can. Dinner for four of us was prepared. A vigorous young Mennonite girl vanished with a bushel basket, and returned with it full of straw, then, placing her kettles, etc., on the top of the cooking range, opened the fire door and thrust in two large handfuls of straw, touched the match, closed the door, and the kettle commenced to sing immediately; in about two minutes the door opened, and two more handfuls of straw were thrust in and the door closed. Our dinner consisted of ham, eggs, potatoes, Russian waffles, and excellent coffee, all cooked in less time than an ordinary stove could have been made "hot for biscuits." The fire was "dead out" before the dinner was half consumed, and the house none the warmer for the fire, the surplus heat all escaping through the broad chimney.—*Northwestern Lumberman.*

Tapping a Natural Reservoir.

The Virginia City, Nevada, *Enterprise* says that the tunnel to tap Eagle Lake is being advanced at the rate of 35 feet per week. It will be about a mile and a half long, and it is expected that it will be completed next fall. It will furnish water power for running several saw mills, and finally will irrigate a great area of now barren sage-brush land in Honey Lake valley. The tapping of this lake is an experiment that is being watched with great interest everywhere on the coast. Should it prove as successful as is anticipated, it will be followed by a similar tapping of other lakes on both sides of the Sierras, for mining, lumbering and other purposes.

"The Handsomest Set He Ever Saw."

A lumbering firm for whom this office has just completed a large order for a set of office account books, writes:—"The books came to hand all right and are highly satisfactory. In finish they are the handsomest set I ever saw. The rivets in the Russia bands being, in my opinion, much better than the lacing."

The experience of one logging operator on the Little Suamico, in Wisconsin, where there has been little snow, was that he got in during the winter 5,000,000 feet of logs, mostly drawn on the ground, and will put in 2,000,000 feet on trucks, which will give him a two-thirds stock.

TEABERRY whitens the teeth like chastened pearls. A five cent sample settles it.

SAVE YOUR HARDWOOD.

The *Northwestern Lumberman* says there is still other timber now looked upon as of little consequence, if, indeed, not as a positive nuisance, of which time will develop a great value. The black birch grows in many of the northernmost regions in great profusion, and ere many years will be as great a favorite as a furniture wood as is cherry or black-walnut today. The opening of railroads through Mexico bids fair for a few years to revive in public favor the use of mahogany, but as a cheap furniture timber the birch will ere many years successfully compete with it. It should be the duty of all public educators to impress upon the minds of the people that but few varieties of timber, even among those now but little esteemed, but will in a few years possess a market value fully compensating the care and labor of wisely preventing their destruction, and while much small timber must necessarily be destroyed in clearing up farms in wilderness sections, it will prove immensely profitable to save all the timber of reasonable size, in full assurance that before many years it will be in demand at a value greater than that of the soil on which it stands.

A Good Selection.

The *Chicago Times* says:—"It is wise and well to plant forest trees in sections of country where they do not grow naturally, but discretion should be observed in selecting varieties and appropriating land for their cultivation. If possible, trees should be selected for planting that will serve at least two useful purposes. In addition to furnishing shade, they should supply valuable timber, good fuel or edible nuts. It is often practicable to plant varieties of trees that will serve all these purposes. Ordinarily, the safest trees to plant are those that are indigenous to the vicinity. They furnish evidence of their adaptability to the soil and climate, and a supply of them can ordinarily be obtained at a small cost. Trees that nurserymen have brought into fashion and praised in horticultural conventions are not always the most desirable ones to plant."

Breaking Rollways.

Dan Crowley, of Phillips, Wis., has introduced a new method of breaking rollways in that region, and accomplishes the end by the use of dynamite or giant powder, and has found the plan to work successfully. He succeeded, by the aid of an expert in the use of explosives, in throwing the logs out of the most difficult places, just where they are wanted, and without injuring the timber in the least. There is also a saving in time and expense. This method has been adopted in Michigan for some time, with more or less success.

Reaching for Northern Lumber.

The *Northwestern Lumberman* says that the Red River & Lake of the Woods Railroad Company has been incorporated for the purpose of building a line from Red River, near Grand Forks, Minn., past Red Lake River, to the mouth of Thief River, then up that river to Lake of the Woods. The route extends 150 miles, and lies through unsettled country. It would tap an extended lumber district in northern Minnesota and about the Lake of the Woods.

CAN'T GET IT.—Diabetes, Bright's Disease, Kidney, Urinary or Liver Complaints cannot be contracted by you or your family if Hop Bitters are used, and if you already have any of these diseases Hop Bitters is the only medicine that will positively cure you. Don't forget this, and don't get some puffed up stuff that will only harm you.

A healthy man never thinks of his stomach. The dyspeptic thinks of nothing else. Indigestion is a constant reminder. The wise man who finds himself suffering will spend a few cents for a bottle of Zoposa, from Brazil, the new and remarkable compound for cleansing and toning the system, for assisting the digestive apparatus and the liver to properly perform their duties in assimilating the food. Get a ten cent sample of Zoposa, the new remedy, of your druggist. A few doses will surprise you.

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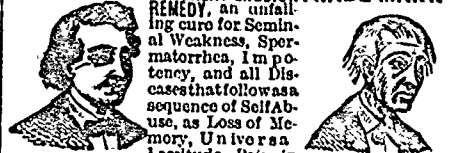
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THE CANADA LUMBERMAN

DEVOTED TO THE LUMBER AND TIMBER INTERESTS OF THE DOMINION.

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

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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.

PETERBOROUGH, Ont. MAY 16, 1882.

MR. E. B. EDDY expects to cut 67,000,000 feet of lumber this season.

ON May 13th Queen Victoria will visit Epping Forest, and with elaborate ceremonies "dedicate it to the use of the people forever."

WY NEVLAND, JR. has recently completed plans for a dozen houses in Winnipeg, and is now engaged upon a number more. The residences are built at Deseronto and taken west.

It is very common now for enlightened farmers in the west and northwest to plant dense rows of trees and hedges of evergreen along the northern line of their orchards and grounds.

THE steamer *Hiram Easton* and four barges laden with lumber from Perley & Pattee's docks were lying in the canal basin at Ottawa, on May 6th, awaiting Government permits to proceed to Kingston.

MESSRS. R. & G. STRICKLAND'S three drives of square timber and logs on the Black River have reached Longford. The timber will be shipped to Port Hope by the Northern and Midland Railways.

A RAFT of five drams of square timber belonging to Mr. Murphy, of Quebec, was warped out of the head of the emigrant wharf at Hamilton, on May 4th, to await the tug *McArthur*, which will tow the raft to Quebec.

THE "heathen Chinese" is trying to turn the tables on his employers in California. A large number of Celestials have formed a company, bought 2,900 acres of good timber land, and are starting a large lumber manufacturing business, hiring the Americans to superintend matters.

THE new tug, building at the yard of Rand & Burger, at Manitowoc, will be named the *George Pankrat*, after one of her owners. She is to be supplied with the machinery formerly in the tug *Margaret*, is intended to tow scows loaded with logs from Sturgeon Bay and Green Bay ports to the owners' mills at Manitowoc.

MAKING maple sugar is a "live industry" in the Eastern Townships. The season, which is about closed, has been a moderately good one for the running of sap. One "sugar-bush" proprietor at Abbotsford, got 2,160 pounds of sugar out of the product of his maple trees.

THE *Monetary Times* says that the Montreal lumber trade with South America will, it is expected, be more than usually active this season. Already close upon a dozen vessels have been chartered to carry deals to the River Plate at prices ranging from \$14 to \$15.50 per thousand.

THE maple sugar crop, throughout the Province of Quebec, has fallen considerably short of the average yield. The general lightness of the snow fall, together with lack of sunny days, is supposed to account for the shortage. Besides, last season was marked by an unusual run of sap, and two such seasons rarely follow each other.

THE *Northwestern Lumberman* says:—Owing to the scarcity of men near Montreal, lumber operators are offering from \$35 to \$40 a month for hands on the drive. On a recent Saturday 700 French Canadians arrived at Montreal from Michigan, where they had been working in the woods, for the purpose of going on the drives. In Michigan they received \$30 a month, and when the operators threatened to cut down their wages, the Kanucks sighed again for the baked beans of the Wolverine pineries.

THE new manager of the Muskoka Boom Company, Mr. G. W. Taylor, has regulated matters so that passengers, mails and freight can be delivered at Bracebridge promptly and so that farmers and others from points on the lakes can arrive and depart from Bracebridge the same day, and have five hours in the village in which to transact business. The difficulties of former log driving seasons have, it is hoped, been pretty well obviated by an arrangement mutually come to by the navigation and lumber interests.

At the Simcoe Assizes held at Barrie this week, a case was tried which is of interest to farmers. The case was that of Bruce vs. Burns. The defendant in this action set a fire to burn some brush on his farm last summer during the very hot weather, the result being that the fire spread to the house of the plaintiff, who lost everything. Witnesses were called who testified that before setting the fire the defendant had said that it would serve the plaintiff right if he got burned out. The defendant not putting in an appearance, the jury gave a verdict for the plaintiff for \$1,200.

PROVINCE OF QUEBEC.

THE *Montreal Post*, in commenting on the annual report of the Commissioner of Crown Lands for the Province of Quebec, writes as follows:—

Perhaps the most interesting of all is that relating to woods and forests. The total amount received for sales of Crown timber limits is \$543,518.76. A large sum truly, and which is the chief source of revenue of the department. It is worthy of remark that up to last year the average revenue received from this source was less than \$390,000. The following extract from the report is explanatory of the increase, but the Commissioner is too modest to state that the great increase may be chiefly credited to himself, one of the most able and hard-working men in broad Canada:—

"The main cause of increase in revenue is due, not only to the present prosperous state of the Province, but also to the more strict attention on the part of the department, and the adoption of more efficacious measures for the protection of our woods and forests, and the collection of the revenues derived therefrom, as well as those arising from the sale of lands. Competent bushrangers have been appointed in every part of the Province where they were most needed; and I am happy to state that their services have been very useful from all points of view."

It is to be regretted that the preservation of timber lands is not kept more distinctly in view. When they shall have disappeared we will all

cry out and ask where they are gone, but now is the time to take action. They are always, when properly managed, a large source of revenue, but rich limits such as ours should, as the years roll on, be made to yield vast returns. The Hon. Mr. Flynn throws out valuable suggestions in this respect, which we hope will have effect.

THE NORTHWEST MARKET.

THE lumber manufacturers of Minnesota and a portion of Wisconsin may, this season, call themselves in high luck. They will enjoy opportunities for a profitable disposal of the products of their mills that they have never enjoyed before, and may never again. High prices as the Michigan mill men are getting, they have reason to envy their Minnesota and Wisconsin brethren. The latter have struck a veritable bonanza. If they do not make more money this summer and the coming fall than they have ever made before in the same length of time, it is because providence will, in some way, sit down on them. In years to come the grandchildren of these men will relate the present year's business experience of their ancestors, and stamp it as phenomenal. They will be justified in so stamping it. It will rank as phenomenal in the history of the lumber trade.

In the great Northwest that is now settling up there is a sharper and larger demand for lumber than was probably ever known before. On an average, 1,200 immigrants reach Winnipeg daily, who go on beyond that point to settle farms and build homes. How to supply this great and growing territory with lumber fast enough is the question. These emigrants are not experts. They hardly know a cull from a finishing board; and fortunately they have money to pay their way. Under such circumstances they are willing to pay a good round price for enough boards to shelter them from the weather. The manufacturers referred to above stand in a position to supply this lumber, and they would be less than human if they did so at prices smaller than they can get simply by the asking. Lumber is shipped from Minneapolis, and called common, that would be placed with culls if it went to down-river markets. The same is true of lumber that is shipped from St. Paul and Duluth.

Quite a portion of the lumber that has reached Winnipeg of late has been forwarded to Portage la Prairie and Brandon. It is claimed that in these two towns there are building contracts amounting to \$6,000,000. It is claimed also that in Winnipeg building operations are upon the tapis that will cost as much more. The heads of the inhabitants of this new country are high in the air just now, and it would be safe to cut down the figures somewhat; but after making a liberal reduction, it is plain that it will take an immense amount of lumber to carry out the plans.

How long this big boom will last is past telling. There is not the slightest probability that it will decline this season. In fact the rush gives promise of becoming greater than it is now. Every mile that the Canadian Pacific road is pushed lessens the chances of the American lumberman. Upon the completion of this road the Canadians will have a finger in the pie. They are aching to do it, and look with green eyes on the board cutters across the line, who are reaping such a reward for their labor, and are pretty sure to reap it for some time to come. The American lumbermen in the territory tributary to Manitoba are not a bit anxious for the completion of the road. One of them remarked the other day, "I wish the blamed enterprise would collapse."—*Northwestern Lumberman*.

FOREST CULTURE.

THE national forestry convention which met in Cincinnati last week was the commencement of a general movement toward the reproduction of the woodland growth which is so rapidly disappearing from this continent. While in France, England, Germany and other European countries one of the principal bureaus of the Government is that having charge of the forests and rivers, the whole matter is neglected by us except as it relates to the lumber trade. In those countries the annual reports of the forestry bureaus are looked forward to as having an important bearing not only upon the sanitary con-

dition and agricultural resources of the country, but upon the revenue as well.

The combined effect of accidental fires, clearings, and the wasteful consumption of forests in the production of lumber, railroad ties, tanbark, fuel and for other purposes, with a total neglect of the means of reproduction, have depleted the forests to a greater extent than is generally recognized. The late convention was suggested by the United States census statistics, which show that, should the destruction of the forests of the United States go on for the next quarter of a century at the same rate as during the last ten years, trees of a spontaneous growth will begin to disappear. To guard against this calamity by devising plans of forest culture, suggesting necessary protective legislation and bringing the matter to the forcible realization of the people, was the general purpose of the convention. During the three days of its sessions papers were read by persons who have made forest culture a study upon the economic, aesthetic, scientific and hygienic aspects of tree-planting.

Ohio is going right at this important work in a practical way. "Arbor Day" is to be established, and a day on which all over the state everybody will plant trees by the roadside, in the public parks and private property. Roadside planting associations are to be organized in all parts of the State, their purpose being to promote the planting of trees along the highways and in groves where suitable sites may be secured. The "arbor day" festival promises to become a feature of the Buckeye state which cannot be too soon adopted by every State in the Union and every Province in the Dominion. —*Ottawa Free Press*.

THE AMERICAN FORESTRY CONGRESS.

THE National Forestry Congress held its first meeting in Cincinnati on the 25th of April, and continued in session five days, during which a large number of interesting papers were read and discussed. Canada was represented by four delegates, who were very cordially received, and invited to take part in the deliberations.

In order that Canadians might be induced to participate more freely in the doings of this Congress, it was resolved that the name be changed to the American Forestry Congress, and that the next meeting be held in Montreal on the 21st and 22nd days of August next. Governor Foster, of Ohio, the Hon. G. B. Loring, Commissioner of Agriculture, Washington, ex-Governors Anderson and Cox, the Hon. Cassius M. Clay and other distinguished gentlemen attended the Congress and took an active part in the deliberations. The Hon. Geo. B. Loring was elected President for the ensuing year and among the Vice-Presidents chosen were Prof. Wm. Saunders, of London, for Ontario and the North-West, and Mr. James Little, of Montreal, for Quebec and the Maritime provinces. The Hon. Commissioner Loring on taking the chair stated that forestry was one of the most important questions in the United States at present, and the Government was in hearty sympathy with the movement. After referring to the example of forest culture set by England and some of the other European nations, the "aesthetics" of tree planting were gone into, one of his points being that trees should not be set in regular order like belles and beaux standing waiting for a quadrille; he also stated that it was easier and better to make a park by planting new trees than by taking up superfluous old ones. The effect of trees upon the powers of association and emotions of man were well described, and the heroic and historic stories connected with trees were told in a most interesting style. He also showed that the cultivation of trees had now become a most profitable branch of agriculture.

Among the papers read and discussed before this congress were the following written by Canadian authors: "The Pine Woods of Canada," by James Little, of Montreal; "Distribution of Canadian Trees," by A. T. Drummond, of Montreal; "Why Should We Plant Trees?" by Dr. A. Eby, of Sebringville, Ont.; "Forest Insects," by Prof. Wm. Saunders, of London. The four following papers were prepared by Prof. Wm. Brown, of Guelph:—"Forests and Rainfall in Ontario," "Lessons from Australia and Scotland," "Suggestious

Respecting a Text Book on Forestry," and "Suggestions Regarding Government Assistance."

On one of the days during the congress at Cincinnati trees were planted to the memory of the illustrious soldiers, statesmen and other prominent individuals, deceased and living, and among one of the pleasantest features of the time was the setting aside of a portion of Eden Park to be called "the Queen's Grove," and also the planting of two oaks by a Lumber of ladies in honor of Her Majesty the Queen and H. R. H. the Princess Louise.

A PREHENSILE TREE.

So many curiosities of plant life have of late years been brought into public notice that the report of the existence of a tree which picks up stones, bones, bits of wood, and other unconsidered trifles from the surface of the ground, retaining them, and suspending them in mid-air, says *Colonies and India*, hardly excites the incredulity now-a-days with which such a statement would have been received a generation ago. Thirty years ago stories of plants whose flowers were furnished with the means of enclosing flies, or even pieces of meat, as a spider seizes on its prey, and quickly surrounds it with a network of gauze and which then actually proceeded to eat the prey thus secured almost as a spider would eat a fly—such stories, thirty years ago, would have been relegated to the category of "travellers' tales." But we have the authority of Mr. Darwin, and anyone may easily have the evidence of his own eyes, to prove that the possession of such properties by certain flowers is no fiction, but an undoubted fact. The same authority, who first brought prominently into notice the remarkable properties of the *Drosera*, has also shown that other plants have actually the power of progression, within certain limits, from one spot to another.

With such instances it requires little effort to believe the correctness of the report above alluded to, that some plants are endowed with the faculty of picking up loose articles from the ground. Lieutenant Houghton, who recently visited New Guinea and several other islands and groups of islands in the Pacific, was the first, we believe, to report the existence of such a tree, though he did not explain the means by which it accomplished this unusual feat. It appears to be a species of *Ficus*, allied to the well known banyan tree, which throws out from its branches air roots that eventually reach the ground, take root there, and in their turn become new stems which perform the same function, so that a single tree eventually extends so far in all directions as to form a complete forest, in which all the stems are united by the branches to each other. The prehensile tree in question similarly throws out from its branches long flexible tendrils, which, touching the ground, do not take root there, but twine themselves around any article that may lie within reach. Eventually these quasi-branches contract so that they fail to reach the ground; but the finger like processes continue to closely grip the substance round which they have twined themselves, and which are consequently suspended in mid-air. In this way articles of considerable weight may be literally picked up from the ground by the tree, and so held in suspension.

MISSISSIPPI LOG CUT.

The Minneapolis *Tribune* gives an estimate of the logs cut in the Mississippi district above Minneapolis and to be sawed at that point. The logs cut have not yet come down to any great extent, hence the cut can only be estimated. Major Camp, who has been over the ground thoroughly, however, estimates the entire crop at 337,000,000 feet in round numbers.

This cut is considered an average one and sufficient for the needs of manufacturers. Two-thirds of the streams in the upper Mississippi country have had plenty of snow; the hauling has been good, and the cut fully up to the average. The winter weather in the latter part of March did much towards preserving an average in the cut along the lower streams, and on the whole the cut has been fully up to what could have been reasonably expected. In spite of this, however, the prospects for lumber manufacturers are not considered particularly rosy.

Though the price of lumber is \$3 per M. more than it was last year, the price of logs has increased still more, while labour and other items of expense are much higher. The men who will make the most money are the loggers who sell their cuts. Of the total cut, all except 90,000,000 feet will be manufactured in Minneapolis.

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LOG TRANSPORTATION

In another column will be found an article on the future supply of logs for the Saginaw river. The following from the Green Bay Advertiser may prove the solution of the practicability of transferring logs from Georgian Bay to the Saginaw river. "One of the greatest improvements made of late years in the lumbering business is in the facility and safety of handling logs. It is not many years ago when it was considered a very risky thing to carry logs a few miles on the bay. It was always done by t'wing, and numerous rafts were broken up and the logs scattered all along the beach. Improvements were finally made in rafting, securing greater safety; and then followed the building of scows to carry the logs. The latter seems to be the best and safest plan, and the scow mode of transportation, or rather the mode of getting the logs on and off the scows, is being improved upon. Wm. Baptist & Son, of this city, have probably as good an arrangement of this kind as can be built.

Now the Two Rivers Wooden Ware Manufacturing Company have adopted Mr. Baptist's plan and are carrying it into effect. They are building a powerful tug at Wolf & Davidson's yard, Milwaukee, and a scow to carry 150,000 feet of pine. The scow is being built in the best and strongest manner and hoisting apparatus similar to Mr. Baptist's put in. The outfit will be complete. The design is to carry logs from different points on the Green Bay and Lake Michigan shore to the factory at Two Rivers. They are now ready to handle logs at any point where they can be landed on the beach or in the water, and are making contracts all along the Green Bay shore for pine, maple, beech, oak and birch logs.

The advantages of this plan will be readily seen. The scow can run close in shore and take small lots of logs that are too distant from the landings of the mills to be hauled by train and points where rafting would be difficult, if there were logs enough to warrant it. It will enable persons clearing up their land to utilize their logs and make a profit on them, while otherwise they would have to roll them in heaps and burn them to get rid of them; so that the arrangement is a mutual benefit to the owners of the mills and the soil.

Our informant, who is a member of the Two Rivers Company, informs us that they lost fortunes years ago in not having an arrangement similar to this for getting their logs. We call the attention of mill men to this item. *Lumberman's Gazette.*

GEORGIAN BAY LOGS.

The *Lumberman's Gazette*, of Bay City, Mich. in an article on the rapid exhaustion of their pine timber, and the sources of their future supply of saw logs, writes as follows:—

Present indications point to the fact that this supply will ultimately be obtained from the Georgian Bay country; and when we understand that some of our far-seeing, best informed and practical men are investing in the timber lands of the country, we are strengthened in the belief that the plan is feasible, and that these investments made by Bay City and Saginaw operators are based solely on the object and with the purposes indicated above.

We are also strengthened in our belief in the feasibility of the plan of supplying the Saginaw river mills with the logs, from a conversation a few days since with E. H. Hazelton, of Philadelphia, a gentleman of extended information, and wide experience in the lumber business, who favored us with a friendly call. Mr. H. was formerly interested with the Flint & Pere Marquette railroad, and more recently with W. S. Gerrish, in the Gerrish logging railroad, and the extensive Clare county lumbering operations. His health becoming impaired by a too close application to business, about three years ago he removed to Colorado with the purpose of recruiting his exhausted energies. Receiving the hoped for beneficial results, he made a visit to the Georgian Bay country in order to obtain information from a personal examination and observation in regard to the quality and extent of the timber resources of that country. So well satisfied did he become that he made immediate purchases on French river, in Muskoka, and returned home. He is now on the route to

revisit the section of country where he made his investment, with a view of a more thorough examination, more extended information, and further outlay of capital. He is most favorably impressed with the timber resources of that section and informed us that on the French river in Muskoka district there is a belt of timber 100 miles wide by 300 miles long, and that other Saginaw river men have already invested in the timber adjacent to that and other streams in what is understood as the Georgian Bay country.

But the next question for consideration, after it has been satisfactorily demonstrated that there is an abundance of timber which is obtainable in that country, is the feasibility of the proposition to transport it to the Saginaw river and make it available in sufficient quantity to supply the capacity of about one hundred of the most extensive lumber and shingle manufacturing plants which are grouped together on the continent. This, of course, could only be accomplished by water transportation and the adoption of some method by which they can be towed or transported in large bodies. It has been very effectually demonstrated that the towing of large timber rafts long distances is within the range of possibility, the only question being the ability to sufficiently secure them against the storms by which they are liable to be overtaken on the route. That the genius of the age, combined with the practical ability and sound judgment engaged in the lumber industry will devise some method by which such a desirable result shall become an accomplished fact, is within the scope of the conception of any person particularly interested, and that the transportation of logs from the Georgian Bay to the Saginaw can be accomplished under such conditions as shall return a reasonable remuneration, we believe to be within the range of practical demonstration, as we are sustained in this conclusion by men who have had an limited experience and abundant opportunities to satisfy themselves in this respect, and by the further and conclusive fact that some of our shrewdest operators are taking advantage of the opportunities offered them in the territory under consideration.

The shores of Georgian Bay, into which many of the streams running into the heart of the pine timber territory empty, is lined with islands which afford ample shelter for rafting operations, and there are many other advantageous surroundings, all of which sustain the feasibility of the proposal to supply the extensive lumber manufacturing on the Saginaw river with stock from the Georgian Bay territory, after that of the lower peninsula of Michigan shall have become completely exhausted.

DECAY OF SPRUCE TIMBER.

The following letter appears in the *Montreal Witness*

SIR, I wish to bring the subject of the fearful destruction going on in our forests amongst the spruce timber before the people, to see if there are any person or persons who are able to give the cause of this wholesale dying out of the spruce in our forests, for I cannot. I also wish to bring the subject before the minds of the owners of timber lands so that there may be means provided to save as much as possible out of the timber before it is entirely spoiled, which will take only a few years to render it worthless. For the information of such parties I will give my experience in those localities where I have been, and before going further, I will say I should be very glad to hear from others, through the papers or otherwise, of the state of the spruce timber in other sections away from those of which I shall speak. In the course of the last three or four years I have travelled more or less throughout the townships of Dudswell, Stoke, Windsor and St. Camille, and feel safe in saying that one-half of the spruce timber in these townships is entirely dead, and a great number of those trees that are not dead are in the first stages of decay, noticeable by the lower boughs becoming dry. Now the most of this timber to-day is sound and might be saved if the owners would sell it, and by so doing realize out of the stumpage. The price this lumber is bringing in the market is such that I am sure there are plenty of parties who would invest sufficient capital to get it to market, provided

they could get it from the owners of the lands. To show how little some men know about timber I will relate a talk I had with an agent of the British American Land Company. I said to him, "Why do not the company sell the spruce timber on their lands before it is entirely spoiled?" His answer was, "Oh, there is plenty more growing," which shows how little he know about spruce timber in our forests. The small trees to which he referred that grow up amongst the large timber on the ridges where the most of the spruce timber is found are good for nothing, and never will be of any value. The most of them are a scrubby second growth, and not one to ten of them but are rotten at the bottom, and they are also dying. It is very singular what causes the trees to die, some say one thing and some another, but none of the causes given seem reasonable to me. The trees seem to become dead from top to bottom all at once. I have myself this last winter, on my own land, cut trees that two years ago were to all appearance perfectly green and thrifty, and when cut there was not a vestige of anything green about them, but they were perfectly sound. There are millions of feet of spruce timber standing upon the British American Land Company's land in the townships before mentioned, in the very same state. The company, I believe, refuse to sell the timber off their lands, but prefer to sell their land and give the buyer the benefit of the timber. This is only right, but the timber being in such a state of decay I think the company would be acting wisely to sell it rather than let it stand and spoil and never do anyone any good, as will certainly be the case if it is not cut very soon. The same is applicable to all owners of timber lands as well as the British American Land Company in the localities of which I speak. How it may be in other places I do not know, but would be glad to learn, for it is going to be a greater damage to the country than many expect. I hope that those for whom this information is intended will take the trouble to enquire into the matter and act accordingly.

FAIRMAN HALL.

Dudswell Centre, April 3, 1882.

FORESTRY CONGRESS.

CINCINNATI, April 25.—The Forestry Congress met at the Music Hall this morning. A large number of men who have given the subject of Forestry attention were present. Governor Foster is here. Ex-President Hayes will be here. There was no business of importance in the forenoon, and no speeches.

Hon. E. F. Noyes was chosen temporary chairman; Alfred Springer, of Cincinnati, Secretary. The following committee was appointed to frame a constitution and by-laws:— Prof. Hough, of Washington, D.C.; Dr. John Warder, of Ohio; G. B. Loring, of Washington, D. C.; Rev. John M. Walden, of Cincinnati; General C. C. Andrews, of St. Paul, Minn.; Prof. Wm. Saunders, of London, Ont.; John H. McMakin, of Cincinnati; General Durbin Ward, of Lebanon, Ohio.

Among the persons present are Hon. Cassius M. Clay, of Kentucky, ex-Gov. Charles Ander-

son, ex-Gov. J. D. Cox, Hon. James Little, of Montreal; N. H. Eggleston, of Williamstown, Mass.; G. B. Bruckett, of Iowa; E. M. Calkins, of Iowa; Prof. Spalding, of Ann Arbor, Mich.; Chas. J. L. Meyer, of Fond du Lac, Wis.; Joseph W. Starr, of Nebraska; Prof. F. L. Harvey, of the Arkansas Industrial University.

The committee reported a constitution, which was adopted. It provides that the name shall be the American Forestry Congress, the object to encourage the protection and planting of forest and ornamental trees, and to promote forest culture. An initiation fee of \$2 shall be required, and the annual dues shall be \$1. Besides the usual officers of President, Vice-Presidents, Secretaries and Treasurer, it is provided there shall be executive committees for each district, a committee on annual meeting, and local committees, all elected annually. After this year the Presidents of State, Territorial and Provincial Associations shall be Vice-Presidents of this Congress. The United States and Canada are divided into eleven districts, according to climate and vegetation. George B. Loring, of Washington, D.C., Commissioner of Agriculture, was elected President. Each State is represented by a Vice-President. W. G. Beal, for Michigan.

President Loring, on taking the chair, delivered a well prepared address.

Sections were then formed on the uses of forests, conservation of forests, influence of forests and educational means. Chairmen for each were appointed to examine the papers offered.

The *Timber Trades Journal* says the long spell of easterly wind has told its tale on the spring fleet, which are now coming forward to the outports as well as to London in unusually large numbers. Fifteen are arriving rapidly at the north east ports. Of the sixty cargoes received this season at West Hartlepool, the majority are wood of this description. At Sunderland the arrivals of mining timber have been exceptionally heavy.

The *Timber Trades Journal* says the arrival of 102 timber laden vessels at London during the week ending the 12th of April is rather a startling importation so early in the year; of these only 14 were steamers. Last year at the same period 33 vessels all told were regarded as a pretty fair supply, but vessels were only then just getting out from the southern Swedish and Norwegian ports. But now apparently the shipping trade is well on for the season.

The *Canadian Manufacturer* says:—"In connection with the rapid settlement of Manitoba and the North-west, the construction of house timber, in parts, ready to be put together, is becoming a business at points in the old provinces. A great deal of the timber used in the North-west is carried there from points in Ontario, and even from as far east as the province of Quebec, and, while the work can be done cheaper here, the cost of transportation is no more. It is therefore likely that there will be a considerable development of this new industry."

LIVERPOOL STOCKS.

We take from the *Timber Trades Journal* the following Comparative Table showing Stock of Timber and Deals in Liverpool on March 31st, 1881 and 1882, and also the Consumption for the month of March, 1881 and 1882:—

	Stock, March 31st, 1882.	Stock, March 31st, 1881.	Consumption for the month of March, 1882.	Consumption for the month of March, 1881.
Quebec Square Pine	110,000 ft.	725,000 ft.	80,000 ft.	83,000 ft.
Waney Board	219,000 "	238,000 "	—	—
St. John Pine	10,000 "	16,000 "	6,500 "	4,000 "
Other Ports Pine	20,000 "	56,000 "	4,000 "	—
Pitch Pine, hewn	635,000 "	489,000 "	201,000 "	193,000 "
" sawn	440,000 "	411,000 "	189,000 "	126,000 "
" planks	60,000 "	136,000 "	60,000 "	20,000 "
Rod Pine	27,000 "	48,000 "	—	5,000 "
Dantzlg, &c., Fir	24,000 "	144,000 "	4,000 "	47,000 "
Sweden and Norway Fir	8,000 "	9,000 "	2,000 "	—
Oak, Canadian	284,000 "	444,000 "	80,000 "	22,000 "
" Planks	53,000 "	114,000 "	27,000 "	15,000 "
" Baltic	60,000 "	49,000 "	—	—
Elm	45,000 "	37,000 "	5,000 "	4,000 "
Ash	14,000 "	7,000 "	1,000 "	2,000 "
Birch	31,000 "	140,000 "	37,000 "	67,000 "
Greenheart	21,000 "	47,000 "	16,000 "	6,000 "
East India Teak	95,000 "	14,000 "	27,000 "	1,000 "
Quebec Pine Deals	5,848 stds.	9,151 stds.	729 stds.	937 stds.
N. B. & N. S. Spruce Deals	10,464 "	22,595 "	3,659 "	3,541 "
" Pine	400 "	1,450 "	—	—
Baltic Deals	2,883 "	6,150 "	442 "	500 "
" Boards	60 "	502 "	30 "	80 "
" Flooring Boards	2,048 "	2,043 "	804 "	318 "

Chips.

It has been resolved by the Harbour Board at Cork, Ireland, to plant a number of trees, 30 feet apart, on the Marina.

LAKR Winnipeg will send in 12,000,000 feet of lumber this season. The six mills are all working up to their capacity.

THE mills of the Eau Claire Lumber Company at Eau Claire, Alma and Meriden, Wis., are slashing up half a million of lumber daily.

WRIGHT & KERMAN, in Midland county, Mich., intend to put a heavy engine on their logging road, sufficient to pull 25 loaded cars.

A Loo railroad will have to be built at Gilchrist Creek in Alpena county, in order to get to the river logs that are skidded at that place.

THE vestry of Paddington has resolved to lay down 25,415 yards super of wood paving in various streets, at an estimated cost of £12,072.

A BLOCK of crocoted pine, in use in the street pavement at Galveston for seven years, was recently examined and found to have lost but an eighth of an inch.

In central Wisconsin it is feared that many logs on the smaller tributaries to the main streams will be hung up for lack of the usual spring rise of water.

THE waters in the streams tributary to the Saginaw river, in Michigan, are falling so rapidly that it is feared a large amount of logs will be hung up unless there is rain.

THE arrivals of wooden cask hoops on the Tyne have recently been on an extensive scale. These goods are principally imported from Rotterdam, and are used at the cement works, chemical factories, and other local industries.

I. K. KERR, of Eau Claire, Wis., has banked 5,360,000 feet of logs this winter, which was over a quarter of a million more than he anticipated. This is a very unusual case. Mr. Kerr estimates that the cut of logs on the Chippewa will run 90 per cent. of the anticipated quantity.

QUARTER-SAWED sycamore is beginning to be used to some extent for finishing purposes, and quarter-sawed beech is also coming into favor in the same capacity, these woods somewhat taking the place of oak. Birch is also being employed in house-fitting with satisfactory results.

MR. J. S. SMITH, of Jacksonville, Fla., is making an effort to establish a pulp and paper mill at that point. The intention is to use palmetto wood. A factory such is as contemplated would cost from \$75,000 to \$80,000. Several Washington capitalists are taking the matter under advisement.

AT Albany, N.Y., prices of hardwood have advanced recently, good walnut going up from \$10 to \$20 per thousand, and most of the other woods being elevated more or less. Sycamore went up \$2, whitewood dropped \$5, and chestnut and oak advanced. The lower grades of hickory and ash advanced also.

By the terms of the lien law passed by the Wisconsin legislature the present winter, any laborer shall have a lien on logs for work done in connection with the getting them off the land and into the market. A promissory note given to secure the debt will not release the lien unless "it be so nominated."

A PLAT of Caldwell township, Missaukee county, Mich., has been made with reference to its standing pine, by which it appears that there is yet 197,000,000 on the stump. If such plats could be made by townships throughout the state, somewhat near an estimate of the standing pine in Michigan could be reached.

A Log jam one and a half miles long has formed eighty miles up the Chippewa at a point known as Gaynor's landing, and the water has declined to such a stage that all efforts to break it were unsuccessful and had to be abandoned. The jam is composed of miscellaneous logs, mostly belonging to the Beef Slough Company.

A NOVEL enterprise will be started in Hamilton shortly. Mr. C. H. Logan, of Newark, N. J., has leased the building on the Great Western railway track east of the city, for the purpose of building houses and exporting them to the North-west. All that is necessary for the construction of wooden houses will be manufactured on the premises. Mr. Logan has had a large experience in Newark, where he is a partner in a large factory of that kind.

THE new pulp mills at Riviero du Loup, on Lac, are now in successful operation. The building stands at the foot of a cliff ninety feet in height, from the brow of which a column of water enclosed in an almost vertical cylinder, six feet in diameter at the top and three feet at the bottom, acts upon a turbine, producing a potential driving force of 850 horse power.

THE Eau Claire Lumber Company has established the following schedule of wages for the season, 11 hours being considered a day's work, and extra time being allowed proportionately. Filers, (per diem) \$5, head sawyers, \$4, sawyers, \$3.50@3.75; edgers, \$2.50, butting sawyers, \$1.75; slab sawyers, \$1.61, foreman, rafting, \$2.10; rafters, \$1.50, common rafters, \$1.50; common mill laborers, \$1.50.

ONE of the biggest logging transactions, if not the biggest, that ever occurred in Lavenport took place on Tuesday, between H. Brown & Co., of Williamsport, Pa., and Page, Dixon & Co., of this city. The firm of Brown & Co. was represented by its senior member, H. Brown, who has for years been one of the most extensive dealers in logs in the Wisconsin and Michigan regions. The completed negotiations of today embraced no less than 17,000,000 feet of logs, which are in Beef Slough and along the Chippewa river. The true figures are private, but it is understood among lumbermen to lay between \$175,000 and \$200,000.—Lavenport Democrat.

A GREENVILLE despatch, dated May 2nd, says some barges and American boats are now at Greece's Point on the way to Ottawa for cargoes of lumber. Navigation is now fully open here. The steamer Carillon, with six barges whose cargo consisted of thirteen hundred and thirty-seven thousand feet of sawn lumber, for Burlington, passed down yesterday morning. Some of those barges are quite new, this being their first trip, and are very much larger than the old style of craft, so much so that instead of the ordinary lockage of four vessels at a lockage, only one of those could be passed through at a time. The steamer Mink and eight barges also passed down and two rafts have already landed on the south shore at Grant's Point.

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Neuralgia, Sciatica, Lumbago, Backache, Soreness of the Chest, Gout, Quinsy, Sore Throat, Swellings and Sprains, Burns and Scalds, General Bodily Pains,
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No Preparation on earth equals St. Jacobs Oil as a safe, sure, simple and cheap External Remedy. A trial entails but the comparatively trifling outlay of 50 Cents, and every one suffering with pain can have cheap and positive proof of its claims.
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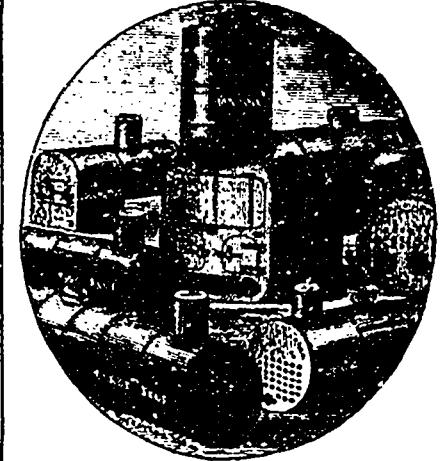
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We have for Sale a large quantity of PINE, OAK, WHITEWOOD, ASH, CHESTNUT, CHERRY, BUTTERNUT, BASSWOOD, &c.
S.P.S.—A SET OF TUB MACHINERY FOR SALE, CHEAP—OR EXCHANGE FOR LUMBER.

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Manufacturers of SURGICAL and ORTHOPEDICAL INSTRUMENTS. ARTIFICIAL LIMBS made to order. INDIA RUBBER GOODS of every description.
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MANUFACTURERS OF ALL KINDS OF
STATIONARY,
MARINE, and
LOCOMOTIVE BOILERS,
And SHEET IRON WORK.



Portable Boilers for Threshing Machines, Shingle Mills, etc., furnished on short notice. All Boilers tested by cold water pressure to 150 lbs. to the square inch before leaving the shop.
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Repairs Promptly Attended to.
188 Atwater Street, Detroit, Mich.
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JOSEPH McAFEE,
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Warehouse, Main St., St. John, N.B.
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MANUFACTURER OF
Cooking, Ship, Parlor & Office Stoves
MILL CASTINGS
Ship Windlasses, Capstans, and Ship Castings of all kinds, (MADE TO ORDER.)
Power Capstans, Patent Ship Pumps With Copper Chambers.
Lead Sappers & Water Closets & all goods in my line for Ships' use.
Work done to Order with Quick Despatch.

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MANUFACTURERS OF ALL KINDS OF

Steam Engines.
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MILL MACHINERY.
Ships Windlasses, Iron Capstans and Ships CASTINGS of all kinds.

Ships Cambooses & Cabin Stoves
COOKING AND HEATING
STOVES,
Shop, Office and Parlor Stoves, and Franklins

Agricultural Implements.
BRASS CASTINGS.
Tin, Sheet Iron and Copper Ware for SHIP and HOUSE use.

GRATEFUL—COMFORTING.
EPPS'S COCOA
BREAKFAST.
"By a thorough knowledge of the natural laws which govern the operations of digestion and nutrition, and by a careful application of the fine properties of well-selected Cocoa, Mr. Epps has provided our breakfast tables with a delicately flavored beverage which may save us many heavy doctors' bills. It is by the judicious use of such articles of diet that a constitution may be gradually built up until strong enough to resist every tendency to disease. Hundreds of subtle maladies are floating around us ready to attack wherever there is a weak point. We may escape many a fatal shaft by keeping ourselves well fortified with pure blood and a properly nourished frame."—Civil Service Gazette.
Made simply with boiling water or milk. Sold in packets and tins only (3-lb. and 1-lb.) labelled
JAMES EPPS & CO., Homoeopathic Chemists,
London England.

Market Reports.

TORONTO.

From our own Correspondent.

MAY 8th.—Prices at the yards remain firm at last quotations, and trade is exceedingly flat. I question indeed if retailers have ever experienced a duller month than the one just closed.

Shipping at the docks is quite active, and shippers have little to complain of as regards car accommodation. The average weekly shipments for the last two weeks has been about 3,000,000 feet from the N. & N. W. R. Docks, which is quite a respectable showing, but it is extremely doubtful if shipments will continue at this rate for any length of time, as the total cut for the season is largely dependent on June freshets, and the quantity of logs now at the mills is comparatively small, and the balance of last season's cut will soon be all forward.

I hope that in my next letter I may be able to give you a more hopeful statement as regards building operations and the state of the retail trade here.

In my last letter the name of the firm of John Kennedy & Co., of McDonnell Square, was incorrectly given as Kincely.

QUOTATIONS, FROM YARDS.

Table listing lumber prices for various types of wood, including Mill cull boards, Shipping cull boards, Scantling and joist, up to 16 ft., etc.

OTTAWA.

From our own Correspondent.

MAY 8th.—All the saw mills hereabouts are in full operation, a number of them having already commenced running at night. This augurs well for a busy season, which no doubt will be the case, as the demand is very good.

A DAM ACROSS THE OTTAWA

at the foot of Lake Temiscamingue, in order that a reservoir might be made to hold back the spring freshets and utilize the water later on in the season, when it is actually required for navigation. There is no doubt but that the Ottawa River requires some more improvements in order that the lumber trade may have more than the present conveniences; and the Government's complying with Mr. Rochester's request would be a big step in this direction.

THE SPRING FRESHETS.

The high water lasts only about ten days and then it begins to recede. In some years in the month of July the water is so low that it is very hard to get the timber and logs down the river, and it is equally difficult for vessels on the Ottawa carrying lumber to find water enough for navigation.

IMPROVEMENTS ON THE OTTAWA,

it might be said that of the logs and timber taken out by the various firms last year not more than one-half was navigated to the mills, and this is a serious loss. The usual cut is about 3,000,000 feet of lumber, but last year it reached to only 1,500,000, or 2,000,000 at the outside. Mr. Rochester clearly proved that the building of this dam would not, as some supposed, interfere with the land surrounding the lake.

GRATUITY AID NAVIGATION.

It was shown that the average load of a barge in July was 275,000 feet board measure, while from the middle of July to the middle of September it is 107,000, or a difference of 168,000 feet. The expense of taking that barge from this city to Montreal fully loaded would be just as much as taking it with a half load. At low water it costs \$2 more to drive logs than it costs in June.

OBJECTION TO THE SCHEME.

He held that a dam at the foot of the Lako would completely ruin the farming lands around it, and he said it would also submerge the Hudson Bay station. He suggested that a dam be constructed at the foot of Seven League Lake, about thirty miles below Temiscamingue. This would extend the navigation upon that Lake down to a point within thirty miles of the Mattawa, on the line of the C. P. Railway.

MONTREAL.

From our own Correspondent.

MAY 9th.—Local trade has been good, and there has been an active demand for building lumber at full prices, but with the large receipts coming in now and expected during the season, it is more than likely that the present high prices will hardly be maintained, but as yet there is no appearance of them giving way, as last year's stock of seasoned lumber here is small. We have no change to make in our price list, and continue to quote as follows:—

Table listing lumber prices for various types of wood, including Pine, 1st quality, Pine, 2nd, Pine, shipping culls, etc.

SHIPPING.

Nothing has been done yet in the way of shipping lumber, no vessels having yet arrived in port, but shippers are receiving stock both from below and by the canal from Ottawa, so that as soon as ships arrive, loading will be active for a time.

RIGHTS.

There has not been much transpiring in the way of chartering vessels for South America, some engagements, however, have been made at \$14@15.50. By the date of our next report business ought to have made a fair start, as it is, we are yet between the seasons, when very little can be said about business.

CORDWOOD.

Some boats with cordwood have arrived both from below and by the Lachine canal. Wood is scarce in the country, and prices are likely to

rule high, as people are asking about \$1 a cord more than they did last year. Demand is improving here, and railway prices are still asked on the wharfs, which we now quote, ex cartage:

Table listing prices for Long Maple, Short, Long Birch, Short, Long Beech, Short, Long Tamarack, Short.

LONDON, ONT.

From our own Correspondent.

MAY 10th.—The lumber business here since my last letter has not shown any movement towards activity, on the contrary, it is remarkably quiet for this season of the year. Little building is going on, and the season continues very backward. The only important operations going on is the laying of the cedar block pavement on Richmond street, from Dundas street to the G. W. R. station.

Prices of lumber remain firm at my last quotations, which are as follows:—

Table listing prices for Mill cull boards, Shipping cull boards, Common boards, Scantling and joist, up to 16 ft., etc.

ST. JOHN, N. B.

From our own Correspondent.

MAY 6th.—The weather continues cold and backward for this season of the year. The river became sufficiently clear of ice for the resumption of navigation only in the present week, the first steamer reaching Fredericton on Tuesday, the 2nd May; last year the same trip was accomplished on the 11th of April; that, however, was exceptionally early.

STEAMSHIPS.

With the return of spring we are again strongly impressed with the rapidity with which the steamships are supplanting sailing vessels in our wood trade. Since the first of April no less than fourteen of these great steamships have already entered our harbor for deal cargoes, making an aggregate tonnage of 17,171 tons, and, estimating from the quantity carried by those already cleared, they will carry over 16,000,000 feet of lumber. The following is a list of the steamships, with their tonnage:—

Table listing steamships and their tonnage, including Altmore, Cherubini, Jothington, Brooklyn City, Benledi, Jas. Turpie, State of Alabama, Crest, Autocrat, Parklands, Ashburne, Fitzroy, Galatea, Broomhaugh.

DEALS.

The deal market is still very firm. \$11 per M. superficial foot is now the price for good deals. Some sales are reported of special specification lots as high as \$12, but these rates are exceptional. There appears no prospect of prices being lower for some time to come.

FREIGHTS.

There is no material change to note in deal freights, the steamships continuing to monopolize the market for the time being; two of them, to arrive, were recently placed at 47s. 6d. and 50s. respectively.

SHIPMENTS.

The shipments of deals and other sawn lumber are as follows:—

Table listing lumber shipments for Europe, United States, West Indies, with tonnage and value.

SHIPPING.

The following is a list of the vessels in port, with their tonnage and destinations:— John Black, 645, W. C. England, E. C. I., or Glasgow.

Table listing shipping companies and vessels, including Kate Crosby, Chrysolite, Antwerp, Albuera, Ophir, Serrano, M. A. Palmer, Orontes, Altamaha, Arklow, State of Alabama, Ashburne, Fitzroy, Henry, George, Galatea, Rurik, Minnie Swift, Broomhaugh, Low Wood, Endrick, Crown Jewell, Melbourne, Maori.

ALBANY.

MAY 10.—Quotations at the yards are as follows:—

Table listing lumber prices for various types of wood, including Pine, clear, Pine, fourths, Pine, selects, Pine, good box, Pine, 10-in. plank, etc.

BOSTON.

The Journal of Commerce, of May 6th, says: Since our last report there has been a fair and steady movement. At the same time buyers are taking hold very cautiously, and are careful how they order, especially in a large way. Values remain about the same, with the exception of spruce, which is a little weak and can be bought somewhat lower (by the cargo) than last week in the New York market.

CANADA PINE.

Table listing prices for Canada Pine, including Selects, Dressed, Shalving, Dressed, 1st, Dressed, 2nd, Dressed Shippers, Dressed Box, Sheathing, 1st quality, 2nd.

CHICAGO.

MAY 4.—The *Northwestern Lumberman* says: The past week has been a lively one in the matter of receipts of lumber and shingles at this port.

As to the general condition of stocks, the daily digest of the Exchange for May 1 estimates the stock of lumber on hand at that time at only 55,000,000 feet in excess of that of the same date last year, a very small excess when compared with the enormous excess of the season in receipts.

On Friday of this week an effort was made by a yard dealer to have a price list meeting of the Exchange called for the object of making a reduction in prices. This movement had not resulted in anything definite when the *Lumberman* went to press. It however shows the feeling of a section of the yard trade in a manner that cannot be mistaken.

Receipts and shipments of lumber and shingles for the week ending May 4, as reported by the *Lumberman's Exchange*—

RECEIPTS.		SHIPMENTS.	
Lumber.	Shingles.	Lumber.	Shingles.
1882.....53,897,000	18,346,000	42,579,000	27,810,000
1881.....41,413,000	10,927,000	32,921,000	20,585,000

Receipts and shipments of lumber and shingles from January 1, to and including May 4th:—

RECEIPTS.		SHIPMENTS.	
Lumber.	Shingles.	Lumber.	Shingles.
1882.....267,442,000	100,932,000	592,307,000	230,010,000
1881.....116,054,000	63,818,000	302,013,000	141,685,000

Inc. 151,388,000 37,114,000 229,694,000 88,325,000

LAKE RECEIPTS TO MAY 4.

1882.....175,901,000	78,035,000
1881.....33,787,000	33,000,000

Increase..... 37,114,000 45,035,000

STOCK ON HAND APRIL 1.

1882.		1881.		1880.	
Lumber.....	279,324,000	322,491,234	263,452,581		
Shingles.....	115,263,625	125,648,264	113,593,000		
Lath.....	20,518,300	33,338,899	30,190,770		
Pickets.....	3,802,011	1,589,064	849,238		
Cedar posts.....	145,335	79,857	47,797		

OSWEGO, N.Y.

Three uppers.....	\$42 00@46 00
Pickings.....	32 00@36 00
Fine, common.....	20 00@25 00
Common.....	14 00@17 00
Culls.....	11 00@14 00
Mill run lots.....	18 00@25 00
Sidings, selected, 1 inch.....	33 00@40 00
1 1/2 inch.....	34 00@40 00
Mill run, 1x10, 13 to 16 feet.....	17 00@25 00
selected.....	25 00@35 00
Strips, 1 and 1 1/2 inch mill run.....	18 00@25 00
culls.....	12 00@15 00
1x6 selected for clapboards.....	25 00@40 00
Shingles, XXX, 18 inch, pine.....	4 00@ 4 30
XXX, 18 inch, cedar.....	3 00@ 3 50
Lath.....	1 60@ 2 25

BUFFALO.

We quote cargo lots:—

Uppers.....	\$46 00@48 00
Common.....	18 00@19 00
Culls.....	13 00@14 00

TONAWANDA.

CARGO LOTS—SAGINAW INSPECTION.

Three uppers.....	\$43 00@48 00
Common.....	20 00@22 00
Culls.....	14 00@15 00

GLASGOW.

The *Timber Trades Journal*, of April 29th, says:—Two public sales of American timber and deals have been held during the week. At Messrs. Edmiston & Mitchell's sale on the 20th, the goods offered comprised the usual description of Canadian woods, and a derelict brig's cargo of spruce deals from Buctouche, N.B., sold without reserve. The attendance from city and country districts was very numerous, and the various lots were taken up with spirited bidding. The sale at Glasgow on the 25th of April, by Messrs. Geo. Gillespie & Co., as undernoted, was confined to deals only, chiefly first-quality, and a good proportion of the catalogue was cleared out:—

Quebec 1st quality yellow pine deals

12 ft. 12/13x3	2s 7 1/2d & 2s 8 1/2d per c. ft.
12 " 11x3	2s 2 1/2d "
11 " 12/13x3	2s 6d "
11 " 11x3	2s 1d "
11 " 9x3	1s 11 1/2d "
10 " 11x3	1s 11 1/2d "
10 " 10x3	1s 10 1/2d "
9 " 11x3	1s 9 1/2d "
9 " 10x3	1s 9 1/2d "
9 " 9x3	1s 8 1/2d "
9 " 8x3	1s 7 1/2d "
9 " 7x3	1s 7 1/2d "

Do. 2nd quality yellow pine deals—

12 ft. 9x3	1s 5d "
12 " 8x3	1s 4 1/2d "
12 " 7x3	1s 4d "
9 " 11x3	1s 3d "

LIVERPOOL.

The *Timber Trades Journal*, of April 29th, says:—There was a little more animation shown in our market during the past week, and an increase in the number of orders is apparent from the busier aspect of the carriers and railway wharves. No doubt much of this is to be attributed to the recent auction sales, where spruce deals and pitch pine timber have been forced off at low prices, especially the latter, as will be seen from the details given below.

The quantity of spruce deals now remaining in first hands is very small, and with the firm attitude maintained abroad by shippers prices should advance, provided the freight market should improve from its present low condition, to which it has fallen by the quantity of steam tonnage driven into this trade.

On the 21st of April Messrs. A. F. & D. Mackay offered one cargo of spruce deals and two parcels of birch, together with other goods, but with the exception of the spruce deals very little changed hands, the buyers being chiefly local dealers. The prices realized were:—

St. John, N.B., spruce deals—

	£ s. d.	£ s. d.
23 to 27 ft. 3x11	8 12 0	
20 " 21 " 3x11	8 10 0	
16 " 3x11	8 10 0	
15 " 3x11	8 7 0	
14 " 3x11	8 6 0	
13 " 3x11	8 6 0	8 7 6
12 " 3x11	8 6 0	
9 to 11 " 3x11	8 2 0	8 5 0
20 " 3x9	8 2 0	
16 " 3x9	8 2 0	
15 " 3x9	8 5 0	
13 " 3x9	8 0 0	
12 " 3x9	7 17 6	
23 to 25 " 3x7	7 7 6	
21 " 22 " 3x7	7 6 3	7 7 6
20 " 3x7	7 7 6	
19 " 3x7	7 7 6	
18 " 3x7	7 7 6	
17 " 3x7	7 7 6	
13 & 14 " 3x7	7 6 3	

St. John birch—

17 to 18 in. deep 2 1/2d per foot.	
16 " " 17d "	
14 1/2 to 16 " " 16d "	
15 1/2 " " 15d "	
13 to 16 1/2 " " 14 1/2d "	

THE WILLOW AS A TIMBER TREE.

We quote the following from a paper by Mr. N. H. Eggleston in the *Popular Science Monthly* for May:—

There are some trees which are deserving of more attention than has yet been given them in this country. The willows, for instance, have seldom been cultivated in a large way; and yet there are few trees so easily grown, or which will pay better for cultivation. They adapt themselves to a wide range of soil and climate. They grow on high ground and on gravelly soils not less than by the sides of streams, where we most commonly find them. They are of rapid growth and yield a large return. The osier-willow is specially useful, we know, for the manufacture of baskets, chairs, and other furniture, and we import it to the extent of \$5,000,000 annually, when we might produce it easily in almost any part of our country. We hardly think of the willow as a timber tree or for the production of lumber, but only as yielding a cheap, poor sort of fuel. But in England the wood is greatly prized for many purposes. While it is light it is also tough; it does not break into splinters. Hardly any wood is so good, therefore, for the linings of carts and wagons used in drawing stone or other rough and heavy articles. It makes excellent charcoal, especially for the manufacture of gunpowder. It bears exposure to the weather, and boards made of it are very serviceable for fences. Some species of it are admirable for use as a live fence or hedge. On account of its comparative incombustibility, the willow is eminently useful for the floors of buildings designed to be fire-proof. It grows to a large size and furnishes a great amount of lumber. There is a white willow growing in Stockbridge, Massachusetts, which at four feet from the ground measures twenty-two feet in circumference and extends its branches 50 feet in every direction. Tradition says it was brought from Connecticut in 1807 by a traveller, who used it as a riding switch. The Hon. Jesse W. Fell, in giving an account of experiments in tree-planting, on an extensive scale, in Illinois, says: "Were I called upon to designate one tree which, more than all others, I would recommend for general planting, I would say unhesitatingly it should be the white willow." Professor Brewer says: "In England, where it is often 60 or 70 feet high in 20 years, there is no

wood in greater demand than good willow. It is light, very tough, soft, takes a good finish, will bear more pounding and knocking than any other wood grown there, and hence its use for cricket bats, for floats to paddle-wheels of steamers, and brake-blocks on cars. It is used extensively for turning, planking coasting vessels, furniture, ox-yokes, wooden-legs, shoelasts, etc." Fuller says: "It grows with incredible fast—it being a by-word that the profit by willows will buy the owner a horse before that by other trees will pay for the saddle." The basket-willow, well cultivated, will yield a net income of \$150 a year to the acre. On the whole, therefore, it would seem that the various kinds of willow, the economic value of which has been hitherto entirely overlooked in this country, are eminently deserving of attention, and will amply reward those who cultivate them.

WALNUT THEN AND NOW.

A few days ago a gentleman from Indiana visited the office of the *Northwestern Lumberman*, and his recital regarding the early hardwood operations in that state were highly interesting.

"The walnut business," he said, "has changed materially since I commenced operations in 1836. I believe I was the first to ship walnut out of the state, for I drew lumber several miles to the terminus of the Lake Shore road that was being pushed westward. There was no trouble in getting walnut then. I remember a tree that stood not far from my mill in De Kalb county, and it was decidedly the finest walnut I have ever seen. The owner of it asked me \$5 for it, but I thought the price too high, and offered him \$4. I afterward offered to split the difference and give him \$4.50, but he was a one price man, and finally I gave him the \$5. I had it cut and hauled to my mill, where it lay for a year or so before I sawed it. In the second year of the war I filled a contract for gun stock timber, and cut the big tree into this material. The butt log made 1,800 feet of clear stuff. The whole tree made 5,253 feet of lumber with the culls out. Culls in those days didn't count. They were used for veneering hog pen floors, and like purposes. I sold the lumber cut from this tree for \$17 a thousand, which I considered a good price, as up to this date \$16 was the most I had obtained. For the latter price I have sold thousands and thousands of feet of as fine counter tops as were ever manufactured. Speaking of this tree, by the way, could I now find its mate I would willingly pay \$200 for it standing, and when sawed into lumber it would bring me \$500."

"How about the standing supply of walnut in Indiana?"

"It is very small. When I settled in De Kalb county there were millions of feet of it, but there are not now to exceed 200,000 feet in the entire county. Walnut everywhere in the state is fast playing out. There are some fine trees held by eastern capitalists, but fine trees are scarce. High prices are inducing men to cut the trees that have been left upon the farms for shade trees. These are not usually more than a foot or so in diameter, but for certain purposes they are preferred to older ones. It is a shame, though, to cut them for they would pay a good rate of interest if they were allowed to grow for a few years yet. There is no such thing as meeting the demand in Indiana for walnut lumber. It is wanted both east and west."

REMARKABLE TREE GROWTH.

A Madras paper, referring to the gardens of the Agr-Horticultural Society in that city, says: "The main-tree (*Pitheco obium saman*) in the gardens, the measurements of which were given in the proceedings of 7th of August, 1878, and then believed to be under six years from the seed, continues, in spite of its having been necessary to amputate some of the largest limbs, to grow enormously. Measured on the 30th of July last it gave in girth 9 feet 4 inches at the ground, 6 feet 3 inches at three feet high, and 5 feet 9 inches at five feet high; in spread about 85 feet from north to south, and a total height of about 46 feet. A reference to the former measurements shows that the girth at three feet from the ground has increased in the last three

years 2 feet 2 inches. The age of the tree is, if anything, overestimated, but search is being made for traces of the receipt of the seed, which, it is believed, came from Ceylon about 1872. A casuarina-tree standing alongside, which was the specimen of its order when that part of the ground was laid out as the Botanical Garden, and is therefore known to be about ten years old, now measures at 5 feet from the ground only 2 feet 8 1/2 inches, though it is about 82 feet high."

Houses for Transport.

QUEBEC, May 4.—The manufacture of houses is being rapidly pushed by the company formed for the purpose at St. Romuald, and of which Mr. Gravel is manager. The company commenced by building little wooden houses twenty-four feet square for transportation to Panama for the use of the workmen on the Isthmus canal. They have now entered into a contract with Sheriff Quesnel of Arthabaska to construct a thousand houses to be forwarded to Manitoba, some of which are three stories high and sixty by eighty-three feet.

Port Hope Shipments.

The *Port Hope Times* says that during the past month shipping has been very active in Port Hope, more especially in lumber. The figures show that it is ahead of the records of any previous year. The following are the amounts shipped:—

Lumber, (feet).....	10,390,170
Laths.....	200,100
Shingles.....	5,065,000
Ties.....	14,047
Cedar posts, (cords).....	31

The steam tug *Jay* and tow of six light barges arrived up at the Chaudiere, at Ottawa, on May 6th, to load lumber.

\$200.00 Reward!

Will be paid for the detection and conviction of any person selling or dealing in any bogus, counterfeit or imitation Hop Bitters, especially Bitters or preparations with the word Hop or Hops in their name or connected therewith, that is intended to mislead and cheat the public, or for any preparation put in any form, pretending to be the same as Hop Bitters. The genuine have a cluster of Green Hops (notice this) printed on the white label, and are the purest and best medicine on earth, for Kidney, Liver and Nervous Diseases. Beware of all others, and of all pretended formulas or recipes of Hop Bitter published in papers or for sale as they are frauds and swindles. Whoever deals in a ny but the genuine will be prosecuted. Hop Bitters Mfg. Co., Rochester, N. Y.

WHY ARE WE BILIOUS?—Why do we have sick headache? Why do we feel weak and tired with little or no appetite? Why that coating of the tongue and that bad taste of the mouth? Your liver is out of order, and does not do its work as nature designs. *Baxter Mandrake Bitters* act directly on the liver, stomach and bowels, and will relieve you at once. They are the best medicine known for costiveness, which is the starting point of ninety-nine cases out of a hundred of all the complaints that human flesh is heir to.

"AND fools who came to scoff remained to pray."—We receive many letters from those having tried while doubting, yet were entirely cured of dyspepsia and liver troubles with *Zoposa*. Clergymen write us earnestly to it wonderful effects.

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Chipman, Renaud & Co.

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FIRE ENGINE HOSE
LACE LEATHER, &c.

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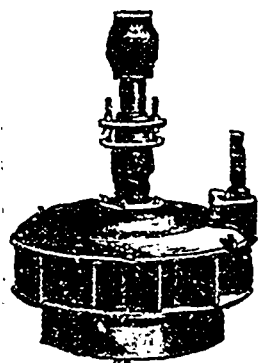
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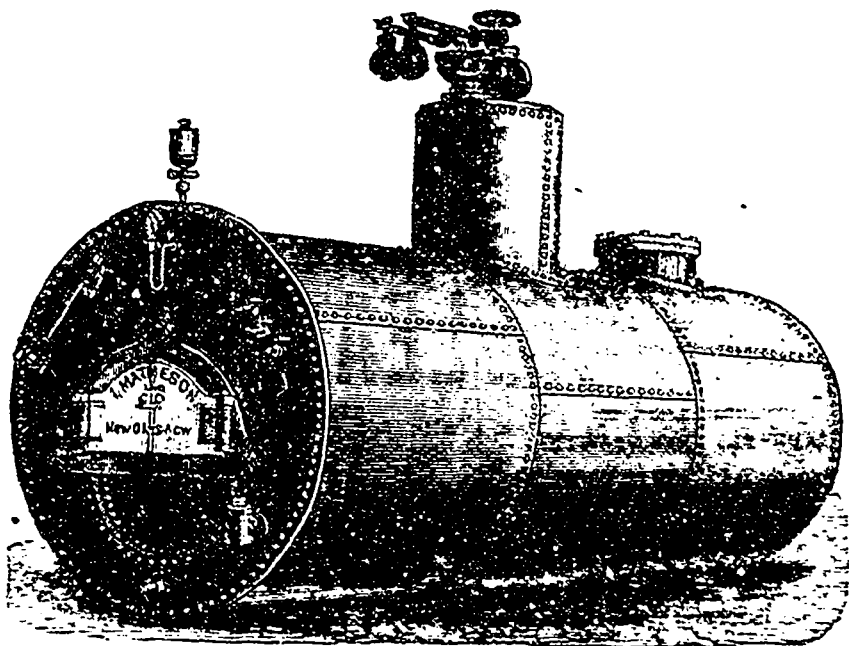
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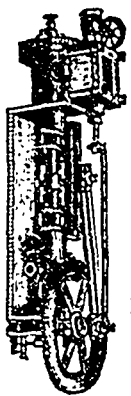
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 weighs 12 lbs. per 100 feet. Other sizes in proportion. Two wheels 40 to 45 in. Drive Wheel and 7 1/2 to 11 in. Cylinder Wheel, or worth \$15.00.

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No. 250
 2 1/2 in. pr. ft.
 Equal 6 in. belt.

NUMBERS.		250 equals 6 inch belt,	25c per foot.
257	7	"	30c
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259	9	"	33c
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We guarantee chain to work well and to be far superior to any belt made.

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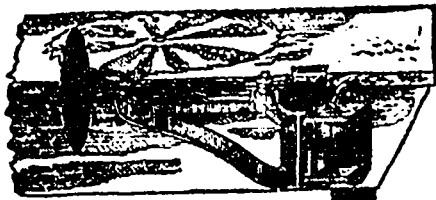
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HODGSON'S Patent Saw Grinder

Is a new, efficient, and exceedingly cheap machine and is equally well adapted to grinding long and round saws of every description. Wheel is moved along the length, and in the depth of the tooth, and can be placed just where wanted as easily as a file. It is just THE THING for mills, cutting from one to five million feet of lumber, and costs no more than one-fourth to one-tenth the price of little better machines. It is patented in United States and Canada, and is made in Welsport, Pennsylvania, and in Amherst, Nova Scotia.

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combines, at a moderate price, more points of excellence than any other. Jointer is built in machine, a few inches from the saw. The cast steel feed rolls are opened by a foot lever, and grip the block like a vice. Traverse of carriage to suit large or small stock, is under control of operator when running. Will run for days without cutting a shim. Warranted to cut, with one attendant, three thousand in an hour, under forfeiture of \$100. Send for circulars to

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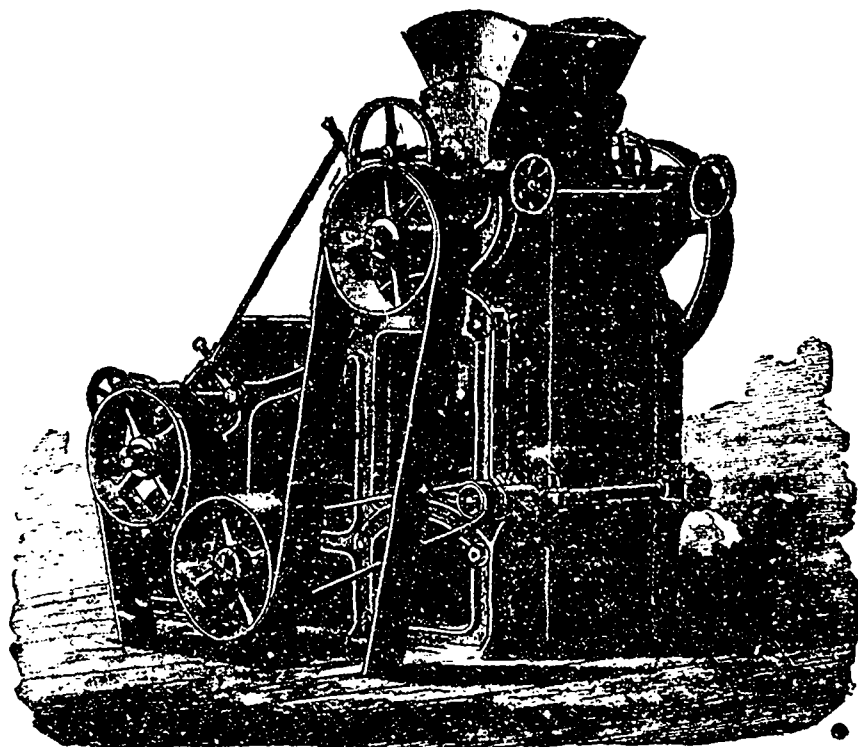
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Yours respectfully,

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Lumberman, Gravenhurst.

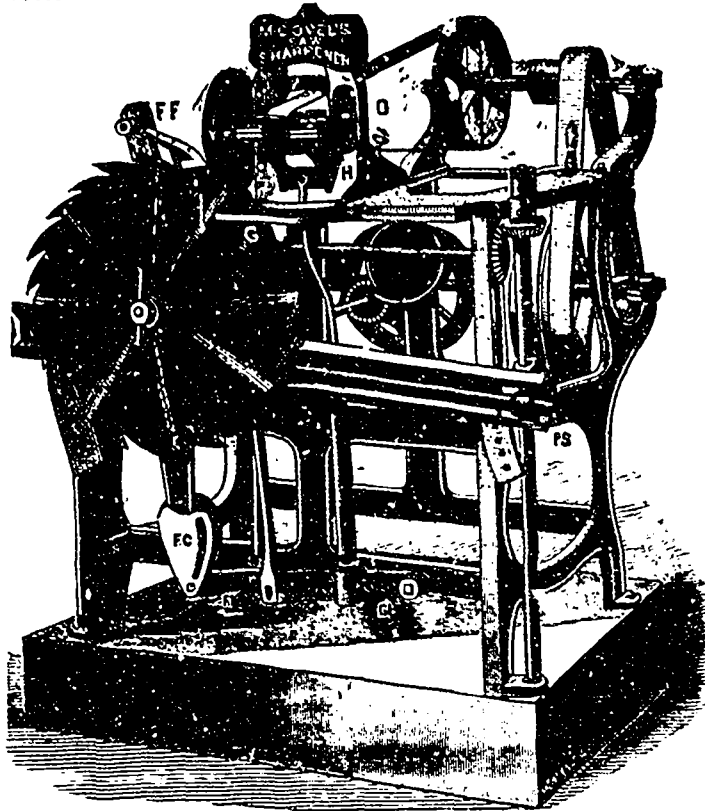
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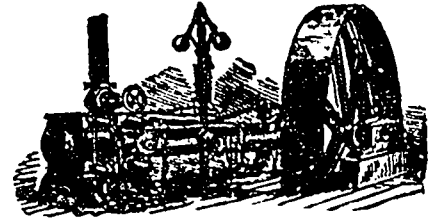


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