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PUBLISHED
SEMI-MONTHLY.

The only Newspaper devoted to the Lumber and Timber Industries published in Canada.

SUBSCRIPTION
\$2.00 PER ANNUM.

VOL. 2.

PETERBOROUGH, ONT., MARCH 15, 1882.

NO. 6.

Upon splitting a white oak tree recently cut down in Nevada county, California, there was found imbedded in the heart of the trunk, sixty feet above the roots, a granite boulder weighing about two pounds. Years ago, when the forest giant was a sapling, some aborigine must have placed the rock between the main shoot and one of its small branches.

The *Lumberman's Gazette* of Bay City, Mich., says that in order to give our readers some slight conception of the future outlook we may simply state that R. H. Weideman & Co. are putting an extra quality of logs in the river at the city by rail and have refused an offer of \$17 per thousand, demanding \$30 for them, with a good prospect that their demand will be acceded to.

The *Chatham, N.B., World* says that Messrs. Whalen & Dunn, on the South branch, are getting out a large quantity of logs for the Hon. Wm. Muirhead. Mr. D. McLaughlan is also hauling a large quantity for Messrs. Guy, Bevan & Co. Messrs. Daniel Sullivan & Wm. O'Brien are hauling for Mr. Robert Swim. Mr. B. N. T. Underhill and Mr. J. L. Murray are lumbering extensively on the Renous and Dunganvan for Mr. Snowball. There are, also, several smaller operators. Mr. McLaughlan has 180 men and 32 horses in his camps. It is estimated that the total haul will be nineteen millions.

PINE IN THE U. S. LAKE REGION.

There has recently been published a report by Prof. Sargent, of Michigan, on the States' forests in the neighbourhood of the Great Lakes containing matter of interest for Canadians as well as their cousins. It states that, according to the carefully digested estimates of the U. S. Census office, the forests of Michigan, Wisconsin, and Minnesota contained in the spring of 1880 some eighty-two billion (82,010,000,000) feet of merchantable pine; and that the pine cut in these three states reached during the census year a total of over seven billion (7,035,507,000) feet. At this rate of destruction these States would be stripped of their pine forests in less than twelve years. It is admitted that some small and scattered lots may hereafter be discovered which may prove the above stock estimate to have been rather low. But there seems to be no doubt that in any event the stock cannot last longer than is anticipated should the rate of consumption increase in the future as it has done in the past. The total production during the last census year, including also hardwood, reached 7,145,969,000 feet, or an increase of eighty-three per cent. of production in 1880 over 1870. A much smaller rate of increase would leave no doubt of the consumption of all the remaining stock in a much smaller period than is supposed. The effect of the destruction of the forests, and with them of the lumber trade, of these regions cannot fail to be a serious

blow to their prosperity, to say nothing of the inconvenience to which the want of a similarly large supply must subject them. Chicago is now the greatest lumber centre the world has ever seen. More than one billion eight hundred million feet of sawed lumber entered it by rail and lake during 1881. Its shipments reach the Atlantic and to beyond the Rocky Mountains. The Chicago Lumber Exchange regulates the lumber trade of the Union; but if these statistics be correct, as there seems no doubt they are, it will not long do so. On the prospect to the States generally, the *N. Y. Nation* writes as follows:—

"An increase of consumption of eighty-three per cent in ten years, or even of seventy per cent. (which is probably nearer the correct figure), is alarming. Nevertheless, the rate at which these forests will disappear will, we believe, be much greater in the near future. The almost entire exhaustion of the pine supply of Maine, New York, and Pennsylvania; the greater facilities which the improvement of the rivers, and the general introduction of short logging railroads and tramways, afford for getting out logs from regions which ten years ago were still either entirely unknown or considered so remote as to be beyond the reach of profitable markets, indicate that, rapid as has been the removal of these forests, the rate of future destruction must be much greater. It is probable that the annual production of pine lumber in these three States will increase considerably during the next five, or perhaps eight, years, and that it will then cease suddenly, and almost entirely. We do not wish to be understood to prophesy that at the end of eight years no more pine lumber will be manufactured in Michigan, Wisconsin, or Minnesota. Pine in small quantities will continue to grow in these States, and pine lumber will probably be manufactured there always. What we intend to say is, that at the end of eight, or perhaps ten, years the pine forests of these States will have been so nearly exhausted that their production will have ceased to be of any national importance, and will not be available for more than mere local supply.

No steps have ever been taken to preserve or perpetuate these forests. Their destruction has been wanton, short-sighted, and stupid. The goose which has laid so many golden eggs, and has built up cities and fleets and great traffic lines, is dying. There can be no future for much of the immense region from which these pine forests have been removed, and it must remain a desert until generations of humbler plants shall have made another crop of pine upon it possible. Nature is slow to forgive any infringement of her laws, and the great-grandchildren of the men who have destroyed these forests will not live to see the shores of the great lakes covered again with pine forests fit for the axe. A wiser policy and a different manage-

ment might have secured permanent supply, with greater, or as great, individual profit. The north-western lumberman in his march to the north has made a clean sweep before him. If any tree escaped his rapacity, the fires, which have every where followed in his wake, destroyed it, and destroyed, too, the ability of the soil to produce pines again. Had he selected only trees of a standard size to cut, leaving all young trees to grow up and sufficient old trees to furnish the ground with seeds for new crops; had he excluded fire from the partially-cut woods, these pine forests might have been preserved indefinitely, and been made to yield crop after crop, and far greater aggregate returns than have now been obtained from them."

Now here is a lesson for Canada. Lumber is our great staple, and the destruction of our forests would leave us in a still worse position than the destruction of the western forests will leave the Western States. It is confessed distinctly that their destruction has been the fruit of the policy which leaves every man to do "that which is right in his own eyes," in full confidence that the result will be to the general good. With such an admitted failure of the system before us, it is time that we should turn aside from it in the case of our forests, as we have been forced to do in the case of fish and game. Let some system of inspection be established whereby young timber will not be destroyed, and whereby a new growth will be secured on lands fitted for no better destiny than forest lands; and, if it be practicable, let some precaution against fires be taken. If we mistake not, these things have been done in European timber-producing countries, and if so they can be done here, if our rulers will turn to the work with a view to help their country, to assist each other in discovering the truth, and to put it in practice. The lumber trade has always been Canada's golden egg; and it must grow in value if we can only save it from the fate which apparently awaits that of our neighbours.—
Mail.

MIDLAND & NORTH SHORE LUMBERING COMPANY.

Public notice has been given that, under the "Ontario Joint Stock Companies' Letters Patent Act," Letters Patent have been issued under the Great Seal of the Province of Ontario, bearing date the seventeenth day of February, 1882, incorporating Dalton Ulyott, of the Town of Peterborough, in the County of Peterborough and Province of Ontario, Lumber Manufacturer, George Albertus Cox, of the same place, President of the Midland Railway of Canada; Alfred Passmore Pousette, of the same place, Solicitor, one of the Managers of the Peterborough Real Estate Investment Company (Limited); Robert Charles Smith, of the Town of Port Hope, in the County of Durham, Lumber Manufacturer; and John Augustus Barron, of the Town of

Lindsay, in the County of Victoria, Barrister at Law; for the purpose of the acquiring of pine timber limits and lands in the Province of Ontario, by purchase or otherwise; the conducting of the business of lumberers and timber merchants, including the purchasing, preparing, manufacturing, transporting and selling of timber, lumber, shingles, lath and pickets, broom handles, matches, pulp, doors, sashes and blinds, pails, tubs, and wooden ware, furniture, agricultural implements, mouldings, boxes, railroad and other cars, ties, cordwood, fence rails and posts, telegraph poles, staves and barrels, axe handles, waggons, carts and lumber dryers; the building of vessels, ships and boats, docks and piers; the planing and dressing of lumber and the erecting and purchasing of mill privileges, water powers, mills, saw mills, buildings, machinery, coves, booms, booming-grounds, utenails, horses, cattle, boats, vessels; the making and working of roads, tramways, and channels of water; the conducting of the business of flour and grist-milling, foundry, machine, and blacksmith's shops, farming, stock-raising, horse-breeding, and the purchasing of lands and buildings necessary to carry on such business; the manufacturing of oat and other meals, lime burning, and the erecting and purchasing of flour and grist mills; the manufacturing of axes and tools, and the erecting and purchasing of shops therefor; the conducting and carrying on of the business of a general wholesale and retail store; of mining for gold, phosphate, and other minerals; and of the quarrying for stone and smelting of ore; and of cotton, woollen and carding mills; and of the right to subscribe to and take stock in booming and river driving, companies and associations; and owning or leasing of railroad cars for transportation purposes; and the right to purchase and do everything necessary for the conducting and carrying on of the said business; the borrowing on the security of their own debentures, or otherwise, such sum or sums of money as may be necessary for the carrying on of said businesses, and that with or without security; the purchasing and selling, making and endorsing of bills of exchange and promissory notes; the investing in the security of mortgages on real estate in the Province of Ontario, or upon the debentures of any municipal corporation in the Province of Ontario, or upon the debentures of any company incorporated by any special or general Act of the Dominion of Canada or the Province of Ontario, doing business within the Province of Ontario, or any part or portion of the profits arising out of the said businesses, for the purpose of repayment of the capital invested; and do all other things whatsoever incidental to the aforesaid business, by the name of "The Midland and North Shore Lumbering Company," with a capital stock of one million dollars, divided into ten thousand shares of one hundred dollars each.

FOREST CULTURE.

To the Editor of the Canada Lumberman.

SIR, — I am glad to see by the last issue of the LUMBERMAN you so kindly sent me that the subject of forest culture and the restoration of our forests is beginning to receive a little attention in the public press. But I am afraid it will be a long time before the subject will be so thoroughly impressed on our people that they will force our government to take action in this matter. As yet, the most prominent idea with our people and our government seems to be how to get rid of our forests the quickest and most easily. Forests are regarded as yet rather in the light of an encumbrance to the development of the country than as a blessing of a kind Providence. While every advantage is taken of our hitherto abundant supply of timber, no effort is made made in the way of replanting.

Were the scarcity of timber and wood the only injury to result from the wholesale destruction of our forests now going on from one end of the Dominion to the other, I would quietly let matters go on as they are, but when I consider the injurious effect this exploitation of our forests has on the climate and the productive power of our soil, I think it my duty to raise my feeble voice with others in the hope of being able to arouse public attention to this subject. The experience of the old world has been so sad that every effort should be made to avoid repeating it on this continent.

The Government of this Province has a large area of public lands, large tracts of which are unfit for cultivation, still in its charge. Every effort should be made to induce the government to undertake the improvement of these tracts by replanting them with valuable timber where they have been bared either by the lumberman's axe or by fire. To allow them to be grown over with worthless or inferior timber, while valuable timber might as easily be grown on them, would be criminal neglect. Our Government has a large surplus on hand, and could not invest it better than by organizing a department of forestry and replanting the townships that the surveyors report as being burnt over, with valuable timber. If \$50,000, or \$100,000, were expended each year in this way it would prove of far greater benefit to the Province than the millions wasted on competing railways that are now swallowed up by the trunk lines.

I hope the LUMBERMAN will continue its efforts in enlightening the public on the important subject of forestry, and that good may result in the end is the hope of

Yours truly,
A. EBY.

Sebringville, March 3rd, 1882.

MASTER AND SERVANT'S ACT.

The following petition is being circulated among the trade for signature:—

To the Honourable the Minister of Justice for the Dominion of Canada.

The petition of the undersigned lumbermen and mill-owners of the Dominion of Canada humbly sheweth:

1. That your petitioners are largely engaged in the manufacture of sawn lumber and square timber in the Dominion of Canada, and in the prosecution of their said business are obliged at great expense to procure laborers at a distance and bring them to the point at which the said logs and timber are to be got out, and for that purpose have to make advances in money to such laborers.

2. That by an Act of Parliament of the Dominion of Canada, 40 Victoria, Cap. 35, passed on the Twenty-Eighth day of April, A.D. 1877, the law theretofore existing was amended and the sections of the Act of the Parliament of the late Province of Upper Canada, intitled "An Act respecting Master and Servant," having reference to the neglecting of employment by servants were with some limitations repealed.

3. That the repeal of the said sections has worked injuriously to the lumber trade of the Dominion of Canada in that there is no safe guard or security to lumbermen who may, in the course of their business, be called upon to procure workmen at great expense to manufacture and get out saw logs and timber, by the advance to such workmen of the means of taking and conveying them from their respective places of hiring, to the point or points at which the

service contracted for is to be performed, or by the payment of money in advance on account of the wages to be earned under such contract of hiring.

4. That Your Petitioners deem it necessary and advisable that such contracts of hiring and service should be placed on the same footing as contracts provided for by Sub-Sec. 3 of Sec. 2 of said Chapter 35.

Your Petitioners therefore pray that a clause such as or to the effect of that following (which is respectfully submitted) should be added to said Chapter 35, by way of an amendment thereto.

"Any person, to whom money has been paid to place him or her in a position to work or perform a contract entered into by him or her, or who may have procured, any other person or corporation to make advances to him or her under a contract of hiring or service, who willfully refuses to perform such contract or service or wilfully quits or neglects the employment of such person, persons or corporation, who has paid such money or made such advance, so that such person, persons or corporation, shall be deprived of the services of such person, shall on conviction," &c. (as in said Sec. 2.)

And your Petitioners will ever pray."

HOW TO PLANT TREES.

We take from the *Canadian Horticulturist*, published by the Fruit Growers Association of Ontario, the following essay by N. Robertson, of the Government grounds, Ottawa:—

A great deal has been written and said about tree planting. Some advise one way, some another. I will give you my method, with which I have been very successful, and, as it differs somewhat from the usual mode, it may be interesting to some of your readers. I go into the woods, select a place where it is thick with strong, young, healthy, rapid-growing trees. I commence by making a trench across so as I will get as many as I want. I may have to destroy some until I get a right start. I then undermine, taking out the trees as I advance; this gives me a chance not to destroy the roots. I care nothing about the top, because I cut them into what are called poles eight or ten feet long. Sometimes I draw them out by hitching a team when I can get them so far excavated that I can turn them down enough to hitch above where I intend to cut them off; by this method I often get almost the entire root. I have three particular points in this: good root, a stem without any blemish, and a rapid growing tree. This is seldom to be got where most people recommend trees to be taken from—isolated ones on the outside of the woods; they are generally scraggy and stunted, and to get their roots you would have to follow a long way to get at the fibres on their points, without which they will have a hard struggle to live. Another point recommended is to plant so that the tree will stand in the direction it was before being moved; that I never think about, but always to have the longest and most roots on the side where the wind will be the strongest, which is generally the west, on an open exposure.

Two years I was much against this system of cutting trees into poles, and fought hard against one of the most successful tree planters in Canada about this pole business. I have trees planted under the system described that have many strong shoots six and eight feet long—Hard Maple, Elm, &c.—under the most unfavorable circumstances. In planting, be particular to have the hole in which you plant much larger than your roots; and be sure you draw out all your roots to their length before you put on your soil; clean away all the black, leafy soil about them, for if that is left, and gets once dry, you will not easily wet it again. Break down the edges of your holes as you progress, not to leave them as if they were confined in a flower pot; and when finished, put around them a good heavy mulch. I do not care what of—sawdust, manure, or straw. This last you can keep by throwing a few spadefuls of soil over; let it pass out over the edges of your holes at least one foot.

I have no doubt that the best time to plant is the fall, as, if left till spring, the trees are too far advanced before the frost is out of the ground; and by fall planting the soil gets settled about the roots, and they go on with the season.

Trees cut like poles have another great advantage. For the first season they require no stakes to guard against the wind shaking them, which is a necessity with a top; for depend upon it, if your tree is allowed to sway with the wind, your roots will take very little hold that season, and may die, often the second year, from this very cause.

All who try this system will find out that they will get a much prettier headed tree, and much sooner see a tree of beauty than by any other, as, when your roots have plenty of fibrous roots, and are in vigorous health, three years give you nice trees.

A HEAVY LAW SUIT.

The Montreal *Witness* says that the Hon. Mr. Church, Q.C., is at present in Ottawa as counsel, with the Hon. Mr. Blake, Q.C., and McCarthy, Q.C., for the respondents in the well-known case of Caldwell vs. McLaren, which is being argued before the Supreme Court of Canada. It will be remembered that Mr. Caldwell and Mr. McLaren owned certain timber limits in Ontario, and that a certain stream passed through, first Caldwell's and then McLaren's property. McLaren's part of the stream, however, was not navigable for logs, and he made the improvements necessary to make it so. Then Caldwell took advantage of this to float his logs down the stream, through McLaren's property, and the latter took an injunction to stop his neighbor from using improvements which another had made. Mr. Caldwell contended that Mr. McLaren had no such rights over running waters to stop another man from floating down logs on it, but Vice-Chancellor Proudfoot at Toronto gave judgment for McLaren.

The case was carried to the Court of Appeal, and the judges there, by two to one, reversed the Vice-Chancellor's decision. The next step was to the Supreme Court, and this step was taken by Mr. McLaren. Whichever way the judgment is given, it is morally certain that the case will be taken to the Privy Council by the loser.

The law costs in this case, which has been going on for three years, are something enormous, amounting already to about \$40,000. The evidence taken in the case is also enormous, about 126 witnesses having been examined. This is the case which gave rise to the famous bill dealing with streams and rivers, which was passed by the Ontario Legislature, but disallowed by the Dominion Government.

A CANADIAN SPEAKS.

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, Campden 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 instantly 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.

NERVOUS PROSTRATION, vital weakness, debility from overwork or indiscretion is radically and promptly cured by that great nerve and brain food, known as Mack's Magnetic Medicine, which is sold by all responsible druggists. See advertisement in another column.

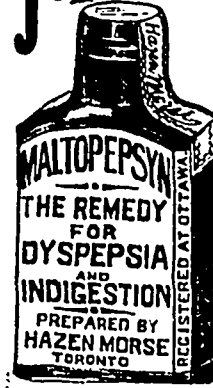
CHILBLAINS.—These troublesome complaints may be speedily cured by Hagar's Yellow Oil, the great Rheumatic remedy, which, as an external application and an internal remedy has a wider range of usefulness than any similar preparation in the world. All druggists sell it. Price 25c.

A GOOD FILTER.—To have pure water in the house every family should have a filter, the health and comfort depends largely upon the use of properly filtered water. The liver is the true filter for the blood, and Burdock Blood Bitters keeps the liver and all the secretory organs in a healthy condition. It is the grand blood purifying, liver regulating tonic.

Clearing up the Wind's Work.

In the territory of the big windfall in the Menominee district, the Kirby Carpenter Company's camp had banked up to February 25, altogether 1,500,000 feet of logs, and it is stated that the teams hauled 300,000 feet of skidded logs to the landing in one day. On the same date the Ludington, Wells & Van Schaick Company's two camps in the same territory had cut and hauled 2,800,000 feet. The last named company has 20,000,000 feet of blown down timber in that immediate section.—*Northwestern Lumberman.*

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Artificial Gastric Juice.

A WONDERFUL FACT, proving the remarkable digestive power of Maltopepsyn.

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 (100° 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.

S. S. MUTTON & Co., Wholesale Lumber Dealers TORONTO.

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. 1117

J. T. LAMBERT,

Lumber and Commission Agent.

FOR SALE.

150	Mils. White Pine,	1 x 10	Stock.
175	"	do	1 x 12 "
11	"	do	2 x 10 "
20	"	do	2 x 12 "
140	"	do	1 inch Siding
20	"	do	11 "
40	"	do	2 x 10 Joists.
16	"	Cedar,	3 x 6 "
19	"	Basswood,	1 1/2 inch.

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Rotary Saw Mills

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CLIMATIC INFLUENCE OF TREES.

The following valuable paper was written by Dr. John A. Warder, of North Bend, Hamilton Co., Ohio, and read before the Ontario Fruit Growers' Association, at their convention in the city of Hamilton, Canada, on Thursday, January 19th. Dr. Warder is a recognized authority on forestry, and as a pomologist has few equals, and no superiors, on the American continent. The paper was received with much interest.

MR. PRESIDENT, AND GENTLEMEN OF THE ONTARIO FRUIT GROWERS' ASSOCIATION:—After hearing the paper on Protection to the Orchard, read at the recent Pomological meeting in Boston, Massachusetts (September 15th, 1881), you, Mr. President, conferred upon its reader the honor of an invitation to prepare a lecture for presentation at the approaching meeting of your society at Hamilton, Ontario.

The proposition was accepted with hesitation, partly on account of impaired health, but mainly because of an apprehension that yourself and your worthy confreres, as fruit growers, would be disappointed in the character of the topic selected—The Climatic Influence of Trees. However, after traversing a portion of your beautiful and productive Province in the lovely days of October, and after beholding the wonderful progress that has been made by your citizens in clearing off the dense forests that once clothed your fertile soil, while observing and considering the changes consequent upon converting the woodlands into the farms, the forest into the prairie, the conviction became stronger that the theme must be drawn from that group of topics, which deserve so large a share of the thoughts and consideration of the American farmers and statesmen.

A perusal of such numbers of your valuable transactions as have been kindly furnished by the secretaries of the two leading societies of the Dominion, also assure the writer that such a theme as the one about to be presented may be welcomed by you, and he feels encouraged by finding that on your side, as well as on ours, forestry is becoming an important question, and that, to some of you, as well as to some of us, the spruce will not down—the question must be met; the sooner the better! Nor should the great interests involved in the word be ignored, either by agriculturists or statesmen. It is high time that our attention should be directed to a consideration of the subject in its bearings upon the agriculture of our continent, and its future maintenance and prosperity.

The transactions of the Ontario and Montreal societies already contain evidence of your interest in Forestry, as shown in the valuable papers relating to Canadian Forests by Mr. A. T. Drummond, Mr. Jas. Little, Mr. H. G. Joly, Mr. G. M. Dawson, Messrs. McAlinsh, G. Peacock and others, which may be read with profit, and which show that your attention has already been directed into this channel, all of which encourages me to continue. At the same time the intelligence and the familiarity with the subject thus displayed by your own members might well cause a stranger to feel some diffidence and hesitation on entering an arena with which you are supposed to be so much more familiar than a casual visitor. It is however, but a limited portion of the subject which it is proposed to discuss at this time, Mr. President, and, as you are aware, the task is undertaken only after consulting you, and after having received your approval of the discussion of wind breaks and shelter belts and sheltering groves for Ontario.

Reference has already been made to the extensive clearings that have been effected by the generation of men now occupying the interior-lacustrine region of fertile lands in Upper Canada. It seems almost incredible that in half a century or less, so vast a change should have been effected in the condition of this broad plateau, as is evident even from the car windows of the rolling train. Over wide areas the forests that once encumbered them have disappeared, leaving no traces of their former existence in the smooth and wide savannas of smiling fields covered with beautiful crops and beautiful herds. In a brief period the howling wilderness of woods and swamps which greeted and might well have repelled the sturdy settlers, has been transformed by man's persevering industry into smiling prairie. Wonderful transformation!

The very stumps of the sylvan monarchs have been rooted out, the soil has been tamed of its wildness, and brought into the highest culture over wide tracts; and with the evidence of high farming that so generally prevails, there have come also the improved animals to consume their share of the products, and to aid in maintaining, or even in enhancing, the natural fertility of the soil.

One of the most striking features of the country traversed, next to the apparent fertility of land, was the broad extent of tillage, where large fields made parts of great farms, and these were bounded on all sides by other farms of apparently equal dimensions, lying contiguous to them on every side, or with small intervening wood lots that could rarely be called forest lands, for their limited extent, and their rilled condition would hardly entitle these bits of woodland to be called forests; they are but shadows of their former selves.

Looking out of the car windows on either hand one might behold vistas opened over these fields that extended in many cases for miles without interruption of a grove or a tree, or even a stump or a bush.

Here then, while finding so much to admire in the results of the industry of the settlers, who, in half a century or less, had effected so great a change upon the earth's surface, here a theme was suggested to the traveller for him to present to-day to his friends of Ontario: This is what he now desires to impress and emphasize—The necessity for you to protect yourselves, your cattle, and your crops from the storms of winter. He begs you to begin at once your efforts to modify and to meliorate your climate by restoring barriers against the winds you have invited by too widely opening to them doors of access to your homes. He also begs you, at the same time, while beautifying your country, to provide against the future necessities of the people by producing, in these plantations, future supplies of fuel and lumber, yes! even here, and on these fertile lands this may be done, and by the wisest economy, by planting trees, in protective groves, but especially in wind-breaks and shelter-belts on all your farms.

While occupying even a considerable portion of arable land, that would then be withdrawn from the dominion of the plough, these plantations will, nevertheless, insure to the advantage of the farmer, and of the country, by enhancing the fertility and productiveness of the remainder of the land thus sheltered, as has been demonstrated on the open prairies of Iowa wherever these shelters have been applied.

The whole of the route traversed by the Grand Trunk Railway westward from Kingston, is very happily situated in regard to lacustrine influence, which must greatly modify the climate of the region. The broad surfaces of those great inland seas, Ontario, Erie and Huron, cannot fail to exert the well known effects of large bodies of water upon the atmosphere. It is, however, the region west of Toronto that is most happily situated in this respect, and here, too, the prevailing character of the soil seems to adapt the region to high farming. Here the lacustrine surroundings are most fully developed, and here, while enjoying the advantages derived from this source, the inhabitants must beware how they expose the country to the disadvantages that may arise from a too open exposure to the water. The winds must not be allowed a too free access to the land.

To obviate the effects of the winds, it is advised to plant groves about the farm steadings to the windward sides of barns and sheds, as well as of the dwellings. These should by all means be supplemented by evergreen shelter hedges and screens about the residence and out houses. The fields and pastures should be protected by wind breaks on every farm.

The wind break demands a liberal space, and the planting of numerous trees to make it effective. In a champaign country these shelters should not be more than forty rods apart, nor should they occupy less than four rods in width, though even a single or a double row of trees between two fields will furnish a great deal of shelter, more especially if they be of evergreen species.

The soil should be well prepared by thorough ploughing and harrowing, so as to produce a

good tilth; when ready to plant, parallel furrows should be drawn four feet apart, in which to plant the little trees. This close planting is particularly recommended where the use of deciduous trees has been determined upon; but more space may be allowed for the evergreens, and where these are planted in single or double rows, with the trees of one row set opposite to the interspaces of the other, six or eight feet may be allowed. If the evergreens have been planted three or four feet apart at the first, alternate trees can be removed and set elsewhere, when their limbs meet on either side; they will be saleable to your neighbours, or they may be used in the extension of your own shelters. At any rate they will have already served a good purpose by rendering the screen more effective; they have paid their way.

The planting, particularly of evergreens, should be done in the spring, and care should be taken to preserve the roots from exposure to the sun and wind; if these delicate organs be once desiccated they never recover.

Planting small trees is a very simple operation, and may be thus performed on land prepared as already directed: A spit of the mellow soil of the furrow is lifted with a spade, the little tree placed, its roots are spread out and the earth from the spade is thrown upon them; this needs to be well prepared with the foot so as to bring it in close contact with the fibrous roots and occlude the air as thoroughly as possible; sufficient mellow soil is then thrown about the tree so that it shall be buried rather deeper than it had been previously. Two men with spades and a boy with trees may constitute a team for this work, and carry two rows. A favorite plan in Iowa is to employ the same force in a single furrow that has been freshly deepened by the plough. One man follows the boy, setting the trees with his hands and tramping with his feet so as to make them stand to the line, while the second follows with a hoe or shovel and draws in the earth. A cultivator or double hand plough is then passed along each side of the row.

The plantation should be well cultivated and kept clean for a few years, longer or shorter, according to the thriftiness of the species, but until the trees shade the ground, when they will take care of themselves. Cattle must be rigidly excluded.

Various combinations of species have been recommended for these belts, but as a rule in forestry it should be borne in mind that evergreens and deciduous trees do not succeed so well when mixed as when each class is massed separately. To this there may be some apparent exceptions: the European larch and Scotch pine, or Norway spruces, are often found in the same group doing well together—so in nature we sometimes find similar admixtures. But all the evergreens would be likely to suffer if they were mingled in a plantation with the rapid growing and unbragging elms, cottonwoods, maples and other broad leaved trees. Beautiful and effective for winter as are the evergreen conifers, however, these native deciduous species cannot be ignored, nor should they be neglected nor dispensed with by the farmers who may desire as quickly and as cheaply as possible to produce an effect in the shelter belt. Let such a one begin with the poplars, willows, or with any trees or cuttings that are at hand, always excepting the so-called Lombardy poplar, which, as an ornamental (!) shade (?) tree, already shows its aspiring head in some of the western towns of the Dominion.

Indeed both classes of trees may be happily combined without mingling them promiscuously. They may be planted in the same belt but in separate rows, putting the sturdy native deciduous kinds in a few rows on the outside, using the cotton woods and white willow, etc., which grow freely from cuttings and which rapidly produce an effective screen. Next to these may come the elms, the oaks, maples or white ash, and other kinds. These thickly set will soon rise and form a protection to the evergreens.

Mr. H. G. Joly, in the 6th report of the Montreal society (for 1880), speaks in high terms of his cotton woods, which in twenty-three years had attained the height of sixty feet, with a diameter of twenty-five inches. This is a remarkable growth, truly, and though the timber

be not of superior value, the desired shelter is quickly produced; and, as he wisely suggests, it will aid in protecting other trees. One form of the cottonwood is a great favorite in Scotland, where it is called the black Italian poplar, and perhaps the same kind is planted extensively in parts of France, where it is known as the populier du Canada.

The European white willow (*salix alba*) is another tree of similar characters, easily multiplied by cuttings, of rapid growth, and largely employed in prairie regions for wind breaks and shelters. When matured these soft woods will be found to have great value for many purposes, though inferior to hardwoods and resinous trees either for lumber or for fuel. The charcoal used in the manufacture of gunpowder is almost exclusively prepared from the white willow.

But your own native trees claim your consideration, and, as appears from your transactions, they have received deserved attention in your discussions. The noble American oak—"Canadian"—(*quercus alba*) merits the care of all planters, especially in the groves. Though it be rather slow in its early growth, it may be supported by more rapidly growing species that must be gradually removed as the oaks need the space they have occupied. Oaks or their acorns may be planted among the poplars and willows of the outside rows, and they will be ready to spring into a vigorous growth when these pioneers are removed.

The sugar maples will make lovely groves, that will yield their sweet tribute, as well as lend their beauty to the landscape, while living, and furnish valuable timber for fuel when cut down. The invaluable white ash should be much more largely planted in groves and by the roadsides, as it makes a beautiful and most useful tree. The American elm, too, has its uses as timber, and is especially adapted for avenue, where room is given for the development of its wide-spreading and wind-resisting branches. The wild cherry, the black, not the red (*prunus serotina*), is commended for its elegance, its thriftiness and rapid growth, as well as for the great beauty and usefulness of its lumber, which is quickly produced.

In your discussions on the subject of shelter, as reported in one of your volumes, a native tree is named which is well to have recognized for its beauty, as well as for the merits you very properly attribute to it as a bee pasture. The American linden or basswood (*Tilia Americana*), may very well be made a leading component of the home grove; its rapid growth will soon make it effective, and its sweets will certainly be welcomed by the bees. The timber of the linden, too, has its uses, though very soft and inferior to many other species, and its inner bark has a commercial value as the material of bast matting, while the wood is used for paper pulp.

There are many other trees with which you can experiment in your planting, but they need not now be mentioned.

In the selection of evergreens for these shelter groves and belts, the hardy natives of your own country should first claim your attention. Nothing can better serve your purpose than the common white pine (*pinus strobus*), and the red pine (*P. resinosa*). Both are rapid growers when fairly started, and both are well adapted to your soil and climate. For shelter grove or wind break they cannot be surpassed. Next to these and in the same genus come the foreign kinds known as the Scotch (*P. sylvestris*), and the Austria (*P. Austriaca*), which are rugged and thrifty, of great value, both growing and when felled, but not equal to our natives above named, either for their future lumber or in the rapidity of their growth. Neither of these can compare with our natives as ornamental trees, though they are often planted with that end in view. They belong to the forest rather than to the lawn, for which we have lovelier species.

Of spruces you have the natives, the beautiful white spruce (*Picea alba*), and the black, which has often a blue tint, (*P. nigra*) and its variety often called red spruce, trees of medium size and beautiful, but excelled in size and utility, whether standing or felled, by the foreign exotic Norway spruce (*P. excelsa*), which yourselves have decided, and very correctly, to be the very best of all evergreen trees for the shelter belt, on account of its hardness, its

adaptability to all soils, its rapid growth, dense spray and foliage, and its comparative cheapness. The Norway spruce is also a very pliable tree, and bears transplanting well, and in the shelter-hedge it patiently submits to the free use of the knife in close trimming. For the shelter grove, and especially for the single or grouped trees of the lawn, nothing can excel the beautiful grace of form, nor the depth and purity of green presented by the common American hemlock-spruce (*Abies Canadensis*). This species was common in much of your early forests and must be familiar to you all. The hemlock has a northerly limit, as shown by Mr. Drummond's map, extending from the northwest and northeast coasts of Lake Superior, by the head waters of the Ottawa River, crossing the St. Lawrence below Quebec and traversing New Brunswick to the ocean in latitude 47 degrees.

The hemlock makes such a dense growth of foliage and slender twigs, that it is perhaps the very best plant for the protective shelter hedges that should be found about the dwellings and outhouses of every farm in your broad domain of Ontario.

The native balsam (*Abies balsamea*), as you seem to be aware, is hardy enough and very beautiful when young, but unsatisfactory for planting because it is apt to grow shabby when older.

The red cedar (*Juniperus virginiana*) has a wide range both north and south, east and west. Though less extended than the other native evergreens, this juniper is found in your part of Ontario, and would be hardy enough, which is not the case with the Irish juniper and some other garden forms.

The red cedar has been called the poor man's evergreen in our Western States, because of its abundance, its consequent cheapness, and the ease with which it may be brought into cultivation. Its growth is sufficiently rapid; trees set out twenty feet apart have formed a close wall of sheltering green, while their tops have grown twenty feet high, with branches from the ground, and all within twenty-five years from the seed. This tree needs age to make its lumber valuable, while young there is too large a proportion of alburnum or sapwood; when the red heart wood is developed the timber is perdurable, and highly valued for posts, sills and other uses where durability is required.

One of your most beautiful and most abundant native evergreens is yet to be mentioned, the American arbor-vitæ, (*Thuja occidentalis*). This is erroneously called white cedar, which is quite a different tree (*Cupressus thyoides*), also found in parts of the Province, and reported in Mr. Dawson's catalogue, on the faith of Mr. Brown, on the great lakes.

The arbor-vitæ abounds everywhere on low lands, and Mr. Drummond reports it on his map as reaching to St. James' Bay, in latitude 52 degrees north. This plant is very abundant along the line of the Grand Trunk Railway, and in favorable situations immense numbers of young plants might be obtained from the mucky lowlands; but it may also be procured from the nurseryman of any desired size, and at low prices, in much better condition for planting out than those taken from the swamps.

The arbor-vitæ and the hemlock-spruce, though admirably adapted for the construction of wind-breaks, are also the two very best species for planting as shelter hedges upon the lawn, around the gardens and about the dwelling and outhouses, wherever it is possible to introduce these screens. You are strongly urged to set them abundantly in all such places for the comfort they will afford to your families.

Plant hemlocks and white spruces on the lawn near your houses. The shelter groves to which allusion has already been made should not be overlooked nor forgotten. These should be placed rather near to and on the windward sides of your buildings. Select the site and prepare the soil thoroughly before planting out the trees you may have selected. Set them closely to produce an immediate effect. Three rows in every four may be of inferior or cheap kinds to act as nurses to the more desirable plants that are to remain permanently. The former must be removed so soon as these last need the space for their healthy development. Of course the whole lot should be well cultivated for a few years, or until the ground is well

shaded. Exclude all cattle of every class from the ground. This is absolute.

Finally, my friends, lest you become weary with too long an article, let us draw this to a conclusion, though you may rest assured the half has not been told had the description been intended to embrace all the trees that are worthy of your care in general planting. A few only have been introduced that were supposed to be especially adapted for the object in view—that of providing shelter groves and wind breaks in the open country, to compensate in some degree for the excessive removal of the natural forests, which has already occurred in portions of your country, just as it has happened in our own State. In your northwestern provinces there are open prairies which must be planted, and doubters will be, by hardy settlers, who will imitate the examples set them by our fellow citizens on the broad trans Mississippi plains. But it is especially you, my good people of the Province of Ontario, and you, dwellers in this fertile, interlacustrine plateau, who are now most earnestly entreated to begin at once the work of providing the needed shelter for yourselves, your cattle and your crops, by planting homestead groves, shelter hedges, wind breaks and shelter belts. Do it, my friends, also for the sake of your friend and well-wisher from over the border.

Lively Work.

A few days ago two men in the employ of Wm. Hales, jobber for Messrs. Ulyott, Sadler & Co., Peterborough, named respectively Theo. Nesbit and The McIlmoyle, cut 101 saw logs in 93 minutes, averaging 14 1/2 inches. The logs were cut with a Lance Tooth saw, and the work was done fairly and honestly, for which the culler of the said logs can vouch.

Of hemlock bark, for tanning purposes, which is a large item in the Eastern Townships, one firm at Warden is receiving 200 cords per day, at Granby, one tanner has \$30,000 worth on hand and has 3,000 more coming in. The price paid is at Danville \$4.50 per cord, and at Warwick Station \$5.00.



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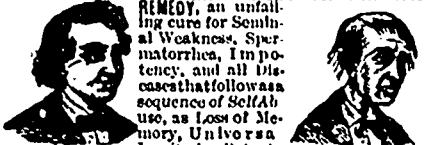
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Communications intended for insertion in the CANADA LUMBERMAN, must be accompanied by the name of the writer, not necessarily for publication, but as a guarantee of good faith. Communications to insure insertion (if accepted) in the following number,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

PETERBOROUGH, Ont. MARCH 16, 1882.

A good cedar swamp is considered to be worth \$100 per acre anywhere in Manitowoc county, Wisconsin.

The total importation of wood into French ports during last year is valued at 178,672,430 francs, or about £7,146,897.

There is a fine specimen of the yew tree in Stedham Churchyard, Sussex, England, having a circumference of 30 feet at four feet from the ground.

L. J. LUCAS, of Stanton, Mich., has ordered 1,600 black walnut trees from the nursery at Tonia, which he will plant on his farm for a future supply of logs.

The Kirby Carpenter Company at Menominee, Mich., has about 15,000,000 feet of pine that was laid low by the "gentle zephyr" of last summer at the big windfall.

We understand that the Longford Mills Co. have sold their whole cut for the coming season at \$3 a thousand beyond the highest price that they realized for any of their lumber last year.

ADVICES from our timber merchants now in Europe say that most of them have met with fair success in effecting sales, and a good number of contracts are being entered into for the coming season.

ON a recent Saturday 64 teams hauled 124 loads of lumber from Hannah, Lay & Co.'s Long Lake mills to Traverso City, Mich., a distance of seven miles, the total measurement of the lumber being 291,000 feet.

THE Lumberman's Gazette says that a sale of 1,000,000 feet of lumber was made in Saginaw recently at \$8.50 for shipping culls, \$17 for common, and \$33 for uppers. This stock could have been obtained a month ago at \$8 and \$16.

THE Northwestern Lumberman says that hereafter the loggers will venerate Vennor. They read his predictions, but trembled lest he should turn out to be a monstrous liar. That alleged prophet has in part redeemed himself, and if he were now to make a trip through the logging districts the boys would take off their hats to him and cheerfully set before him all the beans and molasses he could swallow.

THE saw mill of Mr. Kelly at Somerset, P. Q., is in full operation. A large number of men are employed in the vicinity cutting ties for the Grand Trunk Railway, and Mr. Kelly is also having a quantity of cedar cut for shipment to Europe.

SIR JOHN LUNBOCK gave notice in the British House of Commons to move, on the 7th of March, for a select committee to enquire into the state of forests and woodlands, and whether any, and if so what, steps can be taken to render them more productive.

A QUEBEC correspondent says that timber freights have opened at a slight advance over last spring's quotation, but it is thought that the spring fleet will be small, owing to the detention of a large number of Quebec traders, at southern ports, awaiting cargoes.

AT Kendall, near Port Hope, Messrs. W. Jackson & Son, of the Kendall lumber, shingle and lath mills, run two shingle mills, and a lumber and lath mill. They make from three to four million of shingles, and from six to seven hundred thousands of lumber and lath.

A JOINT stock company is in course of organization in Quebec for the dressing and manufacture of lumber into wooden goods, and for trading in lumber of all descriptions. The capital is \$80,000, and Messrs. A. Thompson, P. P. Hall, J. Price, G. B. Hall and J. H. Hamilton, jr., are the first directors.

THE Northwestern Lumberman says the following circumstance seems like a curiosity, happening in a locality as far north as Emmett county, Mich., in February. On the 16th of that month, in McMann's camp, one team hauled snow on the road, while another hauled 263 logs to Bear river, three-fourths of a mile.

A PARTY of explorers in this city are fitting out for an expedition through the Saskatchewan Valley and through the timber limits toward the Rocky Mountains during the early summer. They are engaged by a large land speculating company just organized in the city, who will expend about half a million dollars in the purchase of lands.

A STEAMER running on the Tennessee and Cumberland rivers has on board a bark crusher and compressing machine, with which it is proposed to crush and compress bark bought at the various stoppages into one-fifth its normal space, the bales, however, holding the original weight. If successful, these machines will reduce the freight on tan-bark, and render possible its exportation to Europe.

THE Secretary of the Chicago Lumbermen's Exchange reported to the annual meeting, on March 6th, that the past year has been one of the most successful ever experienced in the North-West. The receipts of lumber were nearly 2,000,000,000 feet; shingles, 866,000,000; lath, 104,000,000, while coarse forest grades by lake aggregate 2,846,000 posts, 4,200,000 ties and a large quantity of miscellaneous stuff.

OUR WOODS AND FORESTS.

Though we are glad to see that in the Ontario Legislature, as in the press, there are manifestations of a growing interest being felt in the question of the preservation of our fast vanishing forest wealth, yet it is to be regretted that no practical steps have been taken so far this session to preserve and foster it, and especially that nothing has been done towards establishing a department, or at least a separate and independent bureau of "Woods and Forests." The Government has taken no action in the matter, the Opposition does not suggest it, and even the independent members are one and all silent. It seems as if it were the general consent that as long as the revenue is swelled by contributions from our forests, nothing more need be desired, and as if the larger such contributions can be made so much the more satisfactory. Not a word of warning even is said as to the fact that most of the receipts from our woodlands are really a converting into revenue what is in fact a part of our capital, as in the case of the large

payments received, or still to be received, from the recent sale of timber limits. A more complete illustration of the fabled slaughter of the goose that laid the golden eggs could not be conceived, and the consequences must be as disastrous.

The session is probably now too far advanced for any important legislative or even administrative change in this matter. It is not too late, however, to bring the subject before the House, so as to educate alike the members and their constituents with a view to more active proceedings next session. There are many lumbermen among the members who are well able to take up the matter intelligently, and there are several independent members who could handle it without being hampered by any idea of party advantage or disadvantage. Will not one of these gentlemen take up this question and cause it to be so ventilated that a more scientific and economical system may be adopted before it is too late?

BREACHES OF CONTRACT.

In another column will be found a copy of a petition which is now in course of signature for presentation to the Minister of Justice in the hope that as soon as his attention is called to the inadequate protection afforded by the law, as it now stands, to the employers of certain classes of labour, the deficiency will be supplied.

So far as the proposed amendment is concerned, its wisdom will be questioned by few, if any, of our readers, and the only wonder is that so reasonable a request has not long ago been made and engrained in the statute relating to such contracts.

In asking for this amendment the petitioners ask for nothing more than is already the law with regard to breaches of contracts for service on the part of those employed by gas, water, and railway companies. Indeed the proposed amendment does not go as far as the law now goes in the cases mentioned, because it only asks that those who wilfully break such contracts after having obtained advances on account of services to be performed, shall be subject to the same penalties as is now imposed upon the employees named for a breach of contract without reference to whether their wages be or be not in arrear.

It is well known that nearly everyone engaged in the lumber trade has to make advances in various ways to the men taken into the woods on account of the services which they are expected to perform, and it is equally well known that as the law now stands the men to whom, or on whose behalf such advances are made, can with impunity leave the person making such advances "in the lurch," and without giving a single hour's service in return, because the only remedy provided at present for the breach of such a contract is an action for damages—a mode of procedure which would invariably only add to the loss, as no damages can be recovered in such cases. That such a state of affairs has not long ago been remedied is not only surprising but speaks volumes for the general honesty of those to whom such advances are made. There are always, however, black sheep in every flock, and it is certainly not asking too much that when such contracts are wilfully broken the reasonable penalty of a fine not exceeding \$100, or imprisonment for a period not exceeding three months, shall be provided. Such a provision will be quite as much in the interest of the honest employes as the employer, inasmuch as it will enable the latter to deal more liberally with the former, by reason of its affording him a reasonable security that his advances will be repaid.

Of course it will be noted that the proposed amendment only applies to those to whom advances are made, and that it will in no way alter the law with respect to those who earn their money before they ask for it. The cases sought to be provided for are practically cases of obtaining money under false pretences, and as such should be subject to the same punishment.

No doubt when the matter is laid before the Minister of Justice he will see the reasonableness as well as justice of the request contained in the petition, and take the necessary steps for securing the desired amendment during the present session of the Dominion Parliament.

PERPETUATING FORESTS.

In the United States, as in Canada, attention is being drawn to the advisability of not opening for settlement lands which are unfit for agriculture, but rather preserving and restoring their natural forests. The Utica Morning Herald says:—

"The Adirondack wilderness is unconquerable—why should further effort be made to subdue it? Here is this beautiful region, located in the very heart of our civilization. Is it not here for a good purpose? And if so, should we not make the most of it? Our forests are disappearing; why not preserve the one forest which experience has proved is valuable for no purpose except as a forest? Other nations have learned the utility of forests, and spend their money lavishly in reproducing them. Why not we? As the forests disappear, the waters of these beautiful lakes shrink in volume. We need these waters, if we are to preserve our canal system. They are needed to preserve the humidity of our atmosphere which makes for our comfort and health. Already vast areas of naked rock, arid sand and gravel alone remain to receive the bounty of the clouds, unable to retain it. Why should not the state replant them? It would be more profitable than the building of gaudy new capitols, into which we pour our taxes without stint. At any rate, why should not the state at least take measures to preserve what is left of the Adirondack wilderness?"

The \$100,000 Suit.

The case of McLaren vs. the Canada Central Railway Co. was advanced another stage on Thursday. The defendants moved last term to set aside the verdict for \$100,000, recovered by the plaintiff at the last Toronto Assizes, and to enter judgment for them on a number of grounds. The action was to recover damages for the destruction of the plaintiff's lumber yard caused by fire issuing from the smoke-stack of one of the defendant company's engines. The court affirmed the verdict with costs, and discharged the defendants' order nisi.

Transplanting Evergreens.

The best season for transplanting evergreens is from April to June. Spruces are very easy to transplant, and if the roots are kept from drying and are protected from the air, and well spread and surrounded with the fresh soil, they can be moved without any loss whatever.

NOTHING ON EARTH SO GOOD.—Certainly a strong opinion, said one of our reporters, to whom the following was detailed by Mr. Henry Kaschop, with Mr. Geo. E. Miller, 418 Main Street, Worcester, Mass. "I suffered so badly with rheumatism in my leg last winter that I was unable to attend to my work, being completely helpless. I heard of St. Jacobs Oil and bought a bottle, after using which I felt greatly relieved. With the use of the second bottle I was completely cured. In my estimation there is nothing on earth so good for rheumatism."

Cacoethes Scribendi. Those troubled in this respect may find relief in using Esterbrook's Steel Pens. They are sold everywhere. Wholesale dealers, leading Toronto stationers.

A. L. UNDERWOOD

WHOLESALE DEALER IN
White Pine, Basswood & Hardwood,
82 King Street East,
TORONTO, ONT.

NEW FOUNDRY FIRM.

McLean, Brayshaw & Co
Simcoe Street,
PETERBOROUGH.

CASTINGS of every description in Brass and Iron.
ALL sorts of MACHINERY for Saw and Grist Mills.
STEAM FEED for Circular Saws.
Also Saw Goggles, Cutters, Double Upset Swages, and all Saw Tools.
Send for Price List.

Toronto November 1st 1881

Mess^{rs} The Joseph Hall Manufg Co
Oshawa
Ont.

Gentlemen

When you were Manufacturing Engines and Mill machinery in 1872 you supplied me with all the machinery for my Saw-Mill at Midland.

Every part of the work was strictly first class and gave me the greatest possible satisfaction. I never saw as good a lot of Machinery. The material was the very best quality and the workmanship unsurpassed. Until my Mill was burned and rebuilt I did not fully realize how entirely you carried out your agreement to do me a first class job.

The Engines, Boilers, Circulars, Gauges, and connections worked splendidly. In the erection of the Machinery we had no trouble everything was according to the plans and specifications furnished and was put together without alteration of any kind.

I am pleased to learn that you have repurchased the patterns and plant you sold to the McGill Manufg Co and intend to manufacture all kinds of Mill Machinery. You shall have all the work I can send you.

Yours very truly

N. H. Cook

President of the British Canadian Lumbering and Timber Co.

ONTARIO WOODS AND FORESTS.

The annual report of the Commissioner of Crown Lands for the Province of Ontario for 1881 says —

The improvement in the sawn lumber and hewn timber trade, noted in my Report of 1880, continued throughout 1881, and my prediction of the previous year, "that for some years to come transactions would be remunerative to all concerned," seems to be in process of fulfilment.

Both sawn lumber and hewn timber have found ready markets and good prices, the former realizing higher value than for years past.

Of square and waney timber, it is reported that during the past shipping season prices have ruled higher than they have ever done before for pine of good quality and average; and it is stated that the stock on hand at Quebec is light, and scarcely sufficient for spring requirements.

As expressed in my report for 1879, my opinion, from an economic point of view, is not in favour of the manufacture of square pine, nevertheless, while the business continues to be carried on, it is gratifying to find that a good return is obtained for the article.

The output of some of the saw mills fell short in 1881 of the quantity estimated by the proprietors as the probable cut of the season. This is attributed to scarcity of water in the streams, owing to which considerable quantities of logs failed to reach the point of manufacture. In several instances operators in square and waney timber have been subjected to the same drawback.

In the interest of the public revenue, as well of the settlers who had taken up lands in some unlicensed townships south of French River and Lake Nipissing, it became necessary to deal with the pine in the territory before it became jeopardized by fires raised in clearing the lands, or damaged and wasted by locusts cutting it indiscriminately for their own purposes, in doing which, timber of the finest quality is cut down and applied to uses for which inferior lumber would be suitable, the result being a depreciation of the value of the timber limits before they are brought into market, and in consequence a loss to the revenue. Accordingly, an inspection of the timber in the townships referred to was made in the fall, and on the 6th of October notice was published that a sale of timber limits in the territory would take place at the Department of Crown Lands on the 6th of the current month.

The time selected for the sale was extremely opportune, parties engaged in lumbering had just closed a successful season's business, and having the means were prepared to invest in limits. The attendance was large and the bidding spirited, the prices obtained being beyond precedent, some 1,379 square miles realizing a total of \$733,675.25, of which has been paid up to date \$321,354.66, making the total collection on account of Woods and Forests for the year, \$839,716.86.

The following is the statement made by Mr. T. H. Johnson, Assistant Commissioner, of Revenue collected during the year ending 31st December, 1881:—

Amount of Ottawa collections, A. J. Russell.....	\$204,652.34
Amount of Ottawa collections, McL. Stewart.....	65,338.63
	\$269,990.97
Amount of Belleville collections, J. F. Way.....	85,407.67
Amount of Belleville collections, McL. Stewart.....	3,017.11
	\$88,424.78
Amount of Western Timber District collections at Department.....	150,330.23
Amount of Western Timber District collection, McL. Stewart.....	9,616.17
	159,946.45
	518,362.20
Amount paid in on account of Timber Limits sold 6th Dec. 1881.....	321,354.66
	\$839,716.86

A USE FOR SAWDUST.

The enterprising firm of Leathern & Smith are continually making new improvements and putting new ideas into operation. They are now making the necessary arrangements for using sawdust as fuel on the steam-barge Thos. H. Smith next season. Piles are being driven that project just above the wharf alongside of which the barge lies while in port. Upon these piles

a substantial frame work will be constructed to the height of about twelve feet. On top of this will be placed a hopper, which will have a capacity for about fifty five cords of sawdust. The hopper is filled by means of an elevator which is connected with the large circular saw in the mill close by. A wire sieve will be so arranged as to sort out all the bark and other rough material, which will be carried into the furnace by another elevator. From the hopper a spout will slant down to the scuttle in the hurricane deck of the barge, and thence through the scuttle in the lower deck to the hold beneath. The space on both sides of the engine room will also be filled, only enough space being left on one side to allow a passage into the engine room. The barge has been supplied with an extra large boiler to enable her to use this kind of fuel. The hopper will be filled while the boat is outside, so that no time will be lost when she comes into port and is ready to wood up. This new arrangement will not only save the owners of the boat about \$40 per day in fuel, but will save the expense of burning the material in the furnace, where the intense heat caused by it is continually burning the grates and cracking the kiln. In case freights are high next season the barge will only use sawdust on her way to Chicago, where she will take on coal dust and mix it with the former material to run the boat on her return trip. Other barge lines will undoubtedly take a valuable hint from the foregoing.—*Dorr Co. Advocate.*

PROBABLE TIMBER FREIGHTS.

The vessel men continue to be agitated about the private circular sent out by one Mr. Norton, of Detroit, notifying the timber merchants not to hurry about chartering the vessels at high rates, that the latter are as thick as bees, and that by and by through him freights can be more reasonably arranged.

Said a captain to us this morning, "Vessels are not in the first place as thick as bees, and they will not be so easily obtained as Mr. Norton has intimated. Last year we only obtained fair rates, and this year we only expect the same. The Detroit man is deceiving himself and other people."

"Is there as much timber to carry this year as last?"

"I think there's more of it. There is perhaps 6,000,000 of pine ready for shipment. There would have been considerable oak had the weather been favorable to the getting of it out."

"How much of the total cut will go down the St. Lawrence?"

"The greater part of it. A quantity may go via Tonawanda and Erie Canal to New York. I know there's plenty of it on Lake Superior, Lake Michigan, Georgian Bay and Lake Huron. Norton I used to like. As a marine broker he was well patronized; but in his attempt to monopolize the trade he has evidently calculated without his host."—*Kingston Whig.*

RECKLESS DEFORESTATION.

Colonel Playfair, in his "Travels in the Foot-steps of Bruce in Algeria and Tunis," gives the following description of the disastrous effects of reckless deforestation in the North African coast, about Susa. It is another much needed lesson for Canada:—

"We know (he says) that at one time the country was covered with forests. I myself have travelled for days over plains where not a tree exists, and yet where ruins of Roman oil-mills were frequently met with. Ibn Khaldoun, in his history of the Berbers, says, 'El Kahina caused all the villages and farms throughout the country to be destroyed, so that the vast region between Tripoli and Tangiers, which had the appearance of an immense thicket, under the shade of which rose a multitude of villages touching each other, now offered no other aspect than that of ruins.' Even in modern days the same destruction of forests has been continued, if not wantonly or for purposes of defence, as in the time of the early Arab conquerors, still as surely by the carelessness of their descendants, who never hesitate to set fire to a wood to improve the pasture, or to cut down a tree when timber is required, but who never dream of planting another, or even of protecting those which spring

up spontaneously from being destroyed by their flocks and herds.

In Bruce's notes, written 110 years ago, frequent allusion is made to forests through which he passed, where not a tree is now to be seen, and this is a work of destruction which must go on with ever accelerating rapidity year after year.'

SPECULATION IN TIMBER LANDS.

Says the *Chicago Tribune*—Another indication tending to show that the lumber of the future is certain to cost the consumer more money than it can be bought for at present, is given by a recent purchase of pine land in the Menominee region, where a large tract, five miles from any stream, has been sold within a short time at \$3.00 per 1,000 feet. This land would not have realized 50c. per 1,000 feet two years ago. Speculative purchase of pine tracts at points from which Chicago and the customers of Chicago dealers must secure their supply for the next ten years is becoming quite a frequent practice nowadays among capitalists, who think they foresee a very healthy plum in such ventures. It has already been related that a prominent citizen of Chicago received as his fee in a noted divorce case many years ago a tract of pine land in Michigan, then valued at \$3,000. This land has, it is said, recently sold at the snug sum of \$120,000, or \$5 per 1,000 feet for the stumpage.

THE SURVEY AND EXPORTATION OF LUMBER.

Mr. Colter's bill now before the House of Assembly should be most carefully examined and fully discussed before final action is taken, in order that the country may have opportunity to judge of its merits. For the information of our readers, we give the text of the bill in full:—

An Act to amend the Act intitled an Act of the Survey and Exportation of Lumber.

Be it enacted by the Lieut.-Governor, Legislative Council and Assembly as follows:—

That section six of the above recited act be and the same is repealed and in lieu thereof—That in the survey of pine and spruce logs the following regulations shall be observed by the Surveyors: Logs for the manufacture of deals shall not be less than twelve feet in length and six inches in diameter: shall have an allowance of from four to six inches in the length to permit the deals when sawed to be trimmed—shall be sound, free from bad shakes, auger or plug holes, crooked gum seams, ring or bowel shakes, rot, bad knots, and worm holes. All logs of twenty-six feet long and up shall be measured in two lengths and adequate allowance shall be made by the Surveyor on all crooked logs. The diameter at the small end, exclusive of bark, shall be taken as the diameter for ascertaining the contents, and the surveyor shall mark or scribe on every log surveyed by him the superficial contents thereof, with his private mark and the initials of the names of the purchaser.

The table of contents is changed to correspond to the requirements of the above section—the change only, however, affecting logs up to 10 inches in diameter, above that the old scale table is still preserved.

It is provided that this act shall not affect existing contracts, or anything begun under section six of the old act.—*St. John, N.B., Sun.*

SHREWDNESS AND ABILITY.—Hop Bitters so freely advertised in all the papers, secular and religious, are having a large sale, and are supplanting all other medicines. There is no denying the virtues of the Hop plant, and the proprietors of these Bitters have shown great shrewdness and ability in compounding a Bitters, whose virtues are so palpable to every one's observation.—*Examiner and Chronicle.*

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 now 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.

"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.

Chips.

MESSRS. McCRAE & Co., of London, purpose erecting a saw mill at Ettrick station, London township, for the purpose of cutting 6-inch maple deals for the European market.

FROM the Postmaster General's Report, just published, it appears that the Allan Line of Steamships conveyed from Quebec to Liverpool, between the 21st of April and 30th of November, 1881, deals and staves to the number of 125,643 pieces.

It is reported at Quebec that Messrs. R. R. Lobell & Co. have received the Grand Trunk Railway contract for the supply of timber. The same firm have secured the contract for supplying the Imperial Government with what timber they may require for the ensuing year.

THE *Muskegon News and Reporter* says Thos. D. Stinson, one of the wealthiest, most liberal and enterprising lumbermen in the Muskegon valley, has resolved to take down his \$40,000 residence at Big Rapids and move it to Muskegon at a cost of upwards of \$10,000. The residence, when put up in this city, will be one of the finest in the state, and worth fully \$60,000.

THE *Citizen*, of Iliou, Herkimer county, N. Y., says that "some wealthy Boston tanners have purchased the hemlock bark on 28,000 acres of timber land in the Adirondack region, and purpose soon to strip the trees. We thought the legislature had contracted to preserve the great northern wilderness for the purpose of promoting the rainfall of the State, and of supplying the Erie canal and Hudson river with water enough to float boats.

THE *Northwestern Lumberman* says that Kelly, Rathborne & Co., of Chicago, will bring a suit against T. W. Kirby and H. C. Akoley, of Grand Haven, owners of the tug *J. W. Johnston*, for damages by the fire on Sisson & Lilley's dock in November last. The Chicago firm, whose lumber was consumed, claims that sparks from the tug caused the fire, and will try to prove it. There is money on both sides, and the fight promises to be a lively one.

ONE of Cheboygan's leading lumbermen predicts that the cedar of this section will prove to be more valuable than the pine has been. All the flats along the streams for miles back, in some cases, is covered with a thick growth of cedar. The streams have all been cleaned out so that the cedar crop can be run down without difficulty, and being so conveniently situated on the banks of the several streams, it can be cut and put in the water at a very reasonable figure.

THE speech of the Governor of Michigan at the opening of the special session of the Legislature gives some details of the destruction wrought by the bush fires of last September, which present a very fair idea of the extent of that calamity. He says that the fire swept over a district of some eighteen hundred square miles, causing private losses, so far as known, of an aggregate of over two million dollars, and reducing nearly fifteen thousand persons to a state of dependence upon the public aid for their daily bread. In addition to this nearly three hundred lives were lost, and an immense quantity of public property was destroyed.

THE bill for the incorporation of the Quebec Timber Co. states that the objects of the Company are the acquisition of the pine and other timber limits situated in the Province of Quebec, in the Dominion of Canada, with the saw mills, dwelling houses, workshops, outbuildings, lands, standing timber and other property of H. Atkinson, Esq., of Etchemin, Que.; the acquisition by purchase or otherwise, of timber limits and pine lands in the Dominion of Canada and the United States of America, or elsewhere, other than those above referred to; the conducting of the business or lumberers and timber merchants throughout the Dominion of Canada and elsewhere, including the preparation, manufacture, transport and sale of timber and lumber, and the erection and purchase of mills, saw mills, buildings, machinery, coves, booming grounds, utensils, vessels, the making and working of roads, railroads, tramways and channels of water, and the purchase of additional land, and the doing of everything necessary for conducting the business of the company.

MAGIC'S WONDERS.

"While in London, England, a short time ago," said the professor, "our Oxford-street waiter was made the victim of a practical joke. One morning, as this tonsorial artist sat reading his newspaper, he was startled by seeing a young man enter in a very excited manner, who throwing, rather than seating, himself in the chair, demanded a shave instant. The barber, who was a ready fellow, at once set about obeying the commands of this excited and hurried guest. With a rapidity that surprised himself, he shaved the right side of his customer's face, and then immediately turned to the left. That side he also shaved with cleanliness and despatch, but, judge of his surprise, when his customer demanded to know in tones anything but pleased why he did not shave the right side. The poor bewildered barber was almost certain that he had done so, but perceived to his surprise that the side in question was covered with jet-black hair. Again he shaved it, but while he did so, to his surprise and horror, the hair was growing on the other side. Thus it continued for an hour. While he shaved one side, he could actually see the hair growing on the other side. Terrified beyond expression, he stood motionless; hereupon the young man leaped from the chair, and, snatching the razor, drew it across his throat, and fell to the floor covered with blood. The barber flew into the street hallooing "Murder!" at the top of his voice. A crowd soon gathered, and, with the affrighted barber, beheld the supposed corpse quietly arranging his tie before the mirror—turning very pleasantly, he paid the barber and departed. A theatrical gentleman among the lookers on soon gave it out that it was Professor Hermann, the Great American magician. I went to my hotel and awoke next day to find myself the talk of London," concluded the Professor, "for it was I who did it. I gave the poor barber fits. Did you ever hear how I gave a friend of mine the snakes?" asked the Professor. On receiving an answer in the negative, he said, "A friend of mine, who was as great a drunkard as an actor, and that is saying a great deal, was one morning seen by me entering a drinking-saloon when he was almost on the verge of delirium tremens, and knowing his horror of 'snakes,' as *mania-a-potu* is vulgarly called, I resolved to save him. I entered just as he raised a glass of whiskey to his lips, and rushing forward I snatched the glass from his hand, crying at the same time, 'Hold S., until I take this fly out.' Pretending to take the fly out, I hold up a serpent. S. cried out, 'My God! that is a snake!' 'Not at all,' said I, 'It is a simple house-fly. See? you are covered with them,' saying which I approached, and from his sleeves, hair, etc., I proceeded to pull snakes, protesting all the time that they were flies. 'They are snakes!' cried S. again. 'My God! that is a snake; I tell you, Hermann, they are snakes!' 'Nonsense,' said I, 'they are but flies.' 'Then,' said he, 'I have snakes myself!' and he rushed from the saloon. He was not seen for more than a week after; but when next seen he was sober, and has been so since." "Professor," asked the interviewer, "were you, who are so fond of surprising others, ever surprised yourself?" "Once," was the answer, "then the surprise was a very great and agreeable one, I assure you. It came about in this way, I was for a number of years a sufferer from cramps in my left side, immediately under the heart. I suffered regularly at the close of each performance, and very often was compelled to cancel engagements which I had made, owing to my inability to fill them, being prostrated by cramps, and being in a weak condition. I entertained very serious thoughts of giving up my profession and spending some years in travel, and would have done so but for an attendant of mine, whose head I had cut off occasionally while performing my wonderful decapitation act. The individual to whom I complained of the pains and the cramps in my side on one occasion said it was curious—that I, who could decapitate another and replace the head at will, ought certainly to be able to cure myself. I told him how some of the best doctors in Europe and America had failed. He laughed at me, and said he could cure me in a week. That night he presented me with a bottle of St. Jacobs Oil, the Great German Remedy, saying that its use would produce an

effect more magical than I could readily believe. I laughed at the idea of St. Jacobs Oil doing what had baffled the greatest doctors, but said that I would try it, simply to convince him that trying it would do no good. That night, on retiring, I rubbed my side with the Oil, and, sure enough, its good effect was instantaneous—magical, in fact; I felt relief at once. I slept better that night than I had done for a long time before. Again in the morning I rubbed with the Oil, and at the close of the afternoon performance I noticed a great diminution of the painful cramps. Was I surprised? Well, I was very much surprised, and I told my attendant so. In less than a week, and before I had finished using my third bottle, I was entirely and permanently cured. The effect of St. Jacobs Oil was indeed magical, so much so that I could scarce believe my senses. I have never felt a cramp since—nor is there prophet, seer, soothsayer or magician who can perform such wonders as St. Jacobs Oil."—*Cincinnati Enquirer.*

THE LUMBER OUTLOOK.

The *Lumberman's Gazette*, of Bay City, Mich., says:—There is no mistaking the tendency of the lumber market. The quotations from every direction show an upward tendency, and in some quarters on particular stocks, the advance is very marked. This may be, in a measure, the result of a scarcity of the particular class of lumber on which the advance is so noticeable, but a very material advance on all grades has resulted in almost every direction. That there can be no reaction during the coming season a careful consideration of the causes which have resulted in the rise must convince the most skeptical about the stability of the present lumber business boom. The unexampled building activity of last year reduced the stocks in the yards of dealers in every direction. The increased demand thus engendered, also reduced enormously the unsold lumber in the great manufacturing centres at the close of the season. The greatly increased expense of securing the log crop for next season with which to replace the depleted stock and supply the inevitable demand, must act as an effectual bar against any reduction in price from the figures already attained; and the great probabilities are that a still further advance will result before the new log crop reaches the market in a manufactured state.

I. J. Lucas, near Stanton, Mich., proposes to plant 1,000 black walnut trees on his farm, for the purpose of experimenting as to the feasibility of growing such timber for furniture wood purposes. He will set the trees 20 feet apart, covering ten acres with the plant.

MAINE NEWS.—Hop Bitters, which are advertised in our columns, are a sure cure for ague, biliousness and kidney complaints. Those who use them say they cannot be too highly recommended. Those afflicted should give them a fair trial, and will become thereby enthusiastic in the praise of their curative qualities. *Portland Argus.*

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

BURNS AND SCALDS are promptly cured as all flesh wounds, sprains, bruises, callous lumps, soreness, pain, inflammation and all painful diseases; by the great Rheumatic Remedy, Haggard's Yellow Oil. For external and internal use. Price 25c.

A CURE FOR HEADACHE.—What physician has ever discovered a cure for headache? Echo answers none. But Burdock Blood Bitters by their purifying, invigorating, nervine properties afford a cure in nearly every case. The health-giving principles of this remedy are unequalled by any similar preparation in the world.

THE SECRET OF BEAUTY.—No Cosmetic in the world can impart beauty to a face that is disfigured by unsightly blotches arising from impure blood. Burdock Blood Bitters is the grand purifying medicine for all humors of the blood. It makes good blood and imparts the bloom of health to the most sallow complexion.

Is it a HUMBAG? Some people think all proprietary medicines humbags. In this they must be mistaken. A cough medicine like N. H. Downs' Elixir that has stood the racket of 52 years must have some virtue, and must cure the diseases for which it is recommended, or people would not continue to buy and use it as they do. It seems to us that even if we knew nothing of its merits, the fact of its large and continually increasing sale justifies us in recommending Downs' Elixir to all who may need a reliable cough medicine.

P. PAYETT'S NEW IMPROVED Adjustable Saw Guide!

Can be adjusted without danger. You can take your saw off without taking the guide off the frame.

All kinds of Brass & Iron Casting

PLAINING and TURNING done with Despatch. For particulars address:

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Leather Belting!

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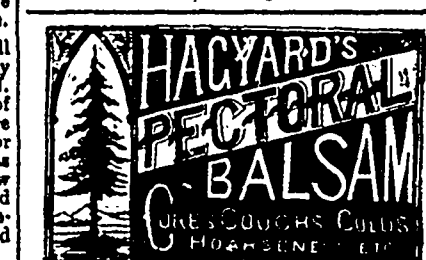
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"By a thorough knowledge of the natural laws which govern the operations of digestion and nutrition, and by a careful application of the fine properties of well-selected Cacao, Mr. Epps has provided our breakfast tables with a delicately flavored beverage 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 maldies are floating around us ready to attack wherever there is a weak point. We may escape many a fatal shot by keeping ourselves well fortified with pure blood and a properly nourished frame."—*Civil Service Gazette.*

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London England. 1114



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(LATE ANGELO McAFEE.)

Warehouse, Main St., St. John, N.B.

AGRICULTURAL IMPLEMENTS.

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. 1116

Lead Sappers & Water Closets & all goods in my line for Ships' use.

Work done to Order with Quick Despatch.

IRWIN & BOYD

Commission Lumber Dealers,

FORWARDERS,

Shipping & General Agents

PORT HOPE.
1117

UNION FOUNDRY

Union Street, - - - Carleton,
Warerooms, Water Street,

ST. JOHN, N. B.

Allan Brothers

(Late of Harris & Allen)

MANUFACTURERS OF ALL KINDS OF

Steam Engines
AND
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. 1118

Market Reports.

TORONTO.

From our own Correspondent.

MARCH 8th.—Prices remain the same at all the yards as when I last wrote you, but this cannot last long in view of the fact that manufacturers on the line of the N. & N. W. R. railways have determined to charge \$10 per M. on cars at the mills, for all bill stuff up to 16 ft. in length, that figure means \$12.50 per M. on car here, and say 50 cents for teaming to the yards, and allow nothing for piling, brings it up to the figures now being sold for at the yards. The danger now to be apprehended is that building operations may be largely curtailed during the coming summer if prices go up much above present figures. Lath still continues to tend upward, and but for the stocks held by the master masons previous to the present dearth, work would be nearly at a stand still.

The N. & N. W. R. Company have somewhat relaxed their stringent rules in regard to the weighing of lumber, so little lumber having been brought over the roads since I last wrote you that doubtless a weight settled upon the minds of the different heads of the freight department quite as heavy as that of green lumber. The G. T. R. Co. still persist in collecting for all overweight, thereby nearly doubling their freight earnings on lumber cars, as it is well understood that the N. R. Co. receives no benefit for the charges levied for excess weight.

I will now continue to notice, for the information of your readers, the other woodworking factories in this city, prominent among which is the shop owned by Mr. George Gall, situated at the head of John street, and whose pay roll frequently foots up to \$2,000 per week. Mr. Gall does a large building trade, and his reputation for good work stands exceedingly high, and the stock of lumber held by him is larger than that held by many of the retail yards. His shop is filled with labor saving machinery and a large staff of experienced workmen. Mr. Gall has also worked up considerable of a trade with firms in Scotland, and ships large quantities of prepared lumber annually, to be further manipulated upon its arrival there.

Messrs. Withrow & Hillock's factory, situated on the corner of Queen and George streets, is also well worthy of notice. This firm has acquired a wide-spread reputation as manufacturers of the celebrated Arctic Refrigerators, large numbers of which are sent to all parts of the Provinces, and may be obtained from them, got up in any style desired, from plain pins to highly polished walnut; they also manufacture all kinds of mouldings, doors, sash, and in fact everything required by builders in the house-fitting line.

QUOTATIONS, FROM YARDS.

Table listing lumber prices for various types of wood, including Mill cull boards, shipping cull boards, Scantling and joist, and various sizes of flooring and lath.

MONTREAL.

From Our Own Correspondent.

MARCH 9th.—The weather for some time past has not been very reasonable for operations at the shanties, and we observe that shanty teams are daily arriving in Ottawa, showing that work on the Upper Ottawa is nearly at a close for this season, while the cut this season will fall short of what was expected. It is rather early yet to say what the prospects are for ship-

ment of lumber from this port, but the general feeling is that it will be fully equal to last year, and will possibly exceed it if there is plenty of water in the Ottawa to bring down the lumber in the fall. In our local market there is not much doing just now, being rather early yet for the spring building demand. Stocks are getting low and our quotations, although unchanged, are firm, and likely to remain so. We continue to quote:—

Table listing lumber prices for various types of wood, including Pine, Spruce, Hemlock, Birch, Hard Maple, Lath, Shingles, and Siding.

CORNWOOD.—Owing to bad roads and unreasonable weather, there has not been so much wood got out in the upper districts, but in the low districts there has been a fair output. The stocks in the yards are beginning to get worked down, and there has been a fair wholesale demand at fair prices, which are likely to be maintained. We quote prices at the railway depot, ex cartage:—

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

OTTAWA.

From Our Own Correspondent.

MARCH 7th.—The season just coming to a close, as directly concerns the lumbering interests of the Upper Ottawa, has been a somewhat remarkable one; and were it not that last summer's operations resulted in comparative success, and rates at present are on the increase, with pretty good prospects of a more prosperous trade the approaching year, the present season would be seriously felt among the establishments here carrying big stocks. Great anticipations were formed in the early part of the season, but unfortunately

A VARIETY OF CAUSES

have arisen which prevented the realization of them. A late commencement was made consequent upon the open season, and little or nothing was done in the shanties up to Christmas, after which a favorable spell set in and considerable work was rushed, but intervals of thaw have occurred up to the present, and will in all likelihood continue. A considerable amount of trouble was experienced right along throughout the winter in securing shanty hands, and to cap the climax that comparatively new horse disease,

PINKNEY,

made its appearance and played havoc with the animals in all directions, some concerns being compelled to close up. All these things taken into consideration, it is estimated that the cut of square timber will be some 15,000,000 feet short of what was anticipated. However, if what has been taken out in the limits, and also the logs stuck in the streams since last season, be safely conveyed to the mills, an average season's work will be the result. On the south shore of the Ottawa operations have been almost completed for the year. Nearly all the teams and a good many men have been discharged. Perhaps the

MOST FORTUNATE OPERATORS

are those having limits on the Kippewa river. They did not experience quite as much difficulty as others in having supplies brought in during the winter, and consequently had a pretty fair season. There are forty shanties on this river. Messrs. Booth & Gordon have two; Sherman, Lord & Hurdman, three; O. Latour, three; Edwards & Co., two; Palsy & Perley, two; Grier, one; David Moore, two; A. Grant, twenty, or thereabouts. About one-half of those are turning out timber and the other half logs.

SALES OF TIMBER

and cuts have already been made within the past few weeks. Geo. Taggart has sold his cut of timber on the Temiscamingue to Quebec merchants. The price received has not transpired. Andrew and P. White have disposed

of their cut on the Magnacipipi. Messrs. R. R. Dobell & Co. have purchased from Messrs. Conroy & McLean all their make of wancy and square pine timber manufactured this season, about 800,000 feet.

CHIPS.

Mr. R. Nagle has just returned to the city, having closed his shanty on the French river last week for want of snow.

In Conroy's shanties on the Madawaska and at Fort Eddy over one hundred horses succumbed recently to the ravages of pinkeye.

The famous case of McLaren v. Caldwell, which has been before the Supreme Court here for some days, has been concluded. Judgment reserved. Costs in this case are enormous, amounting already to \$40,000. 126 witnesses in all were examined.

LONDON, ONT.

From Our Own Correspondent.

FEB. 25.—The most difficult part of a correspondent's duty is to obtain without prejudice a faithful and true account of what he is recording; and it is becoming a popular belief that that individual, were he put to the test, could report verbatim, or nearly so, the proceedings of any Municipal Council meeting taking place in any city in Canada, were he on the Peak of Teneriffe. He knows there is the indispensable chronic grumbler, the philanthropic retired tinsmith, the sanitary alderman, who is a merchant butcher, and whose slaughter-house for years previous to his gaining municipal favor was a terror to the neighbourhood; the little man who is the people's choice for No. — Ward, and who never can exclude the shop from his remarks at the Council Board; then there is the high-toned "linen draper," (see Walker) who is chairman of several committees, and tries to look more fierce and rampant than the gilded lion over his store; then comes the Mayor himself, who has asked permission to retire, and offered heavy premiums for somebody to take his place.

All this is a hollow mockery; the correspondent, or "daily" reporter, knows it; he knows, too, that municipal humanity is the same all the continent over, hence he finds his duties easy to perform, and a Municipal Council meeting fun to him.

Why I commenced my letter in the strain, I will tell you. I have a duty to you to perform which requires considerably more application, and my letters of necessity cannot in the face of fluctuating markets be of a stereotyped form, and I have to exercise great precaution in obtaining authentic and reliable reports, so that I cannot send you letters on supposition, but must write the result of my visits to parties interested, and the report I shall give you in this letter is possibly a little more favorable regarding prices than my last. There is a greater firmness shown by our lumber merchants. Nearly all our bases of supply on the L. H. B. & W. G. & B. Railway have had a very poor season for getting out lumber, and stock consequently is very light, so that the inevitable result must be high prices this coming summer. There is no easing off in figures, if anything there is a strengthening tendency, and prices may be quoted very firm at my last quotations.

LATEL

MARCH 9th.—It has been my intention to furnish you with reliable statistics of the last year's lumber business of this city, and I would have done so sooner but for the impossibility of obtaining the necessary information from the legitimate dealers and merchants, they not having figured up their stock taking results. I think I can promise you that my next letter will contain an authentic statement, as I have up to now got the figures of two of the principal merchants, and will have those of the remainder for my next.

While we have had but three days' sleighing in this city during the whole of the winter, in Wingham, about 70 miles north, they have had about six weeks, so that there is hope that the getting out of lumber at the places of supply will not be so bad as our winter here would indicate.

No great amount of building is going on in the city, though a new large wholesale block is now in course of erection on a part of the site of the old Opera House. I say a part of the site to signify that but for the obstinacy or greed of

two of the store tenants, who refuse to move under the compensation price of a farm, the whole building would have been torn down and a greater area of new building would have been going on. Of course in the suburbs of the city there is always more or less of new dwellings going up. Our new Masonic Temple was dedicated on Tuesday last, and great crowds of the craft were here from all parts of the country.

The lumber market remains very firm, and prices are about the same as my last with perhaps a hardening tendency, and the opinion prevails that before many weeks there will be a jump. In the meantime you will be safe in quoting my last figures.

QUOTATIONS.

Table listing lumber prices for Mill cull boards, Shipping cull boards, Common boards, Scantling and joist, Common stocks, and various sizes of lath.

ST. JOHN, N. B.

From Our Own Correspondent.

MARCH 6.—During a large part of the period since the date of my last report the conditions in the woods for carrying on logging operations were not that could be desired; latterly, however, we have had a very heavy thaw, which, within its range, must have seriously interfered with the work. Possibly the thaw was less severe in the interior (from which no definite information on the subject is to hand), if so, it might not have much influence in impeding operations. For the remainder of the season much will depend on the weather; should this month turn cold and frosty, a large amount of work can still be accomplished, while on the other hand, if the weather continues mild, the hauling will soon be broken up; under any circumstances the log crop will be much below the average quantity.

FREIGHTS.

Our fleet of vessels in port has been considerably increased, and as the demand for tonnage is very light, freights have declined. Several charters have been effected at 62s. 6d. for an extensive range of ports, but later 61s. 3d. was accepted; we quote 60s. as about the rate at present.

SHIPMENTS.

The shipments of deals and other sawn lumber are as follows:— For Europe 1,378,000 Sup. feet. United States 992,000 South America 456,000 No shipments of sugar box shooks for Cuba this term.

SHIPPING.

The following is a list of the vessels in port, with their tonnage and destinations:— Fidelia, 450, Cuba. Alfarin, 446, Bristol Channel. Richard Hutchinson, 788, Penarth Roads, or E. C. Ireland. Maria Alstrup, 359, Bristol Channel, or E. C. I. Cynthia, 866, West Coast England, or E. C. I. Oliver Emery, 623, Bristol Channel, or E. C. I. Hyperion, 306, Cuba. John Black, 545. Kate Sancton, 677. Herbert Beech, 1,061, discharging. Hawthorn, 620, Bristol Channel, or E. C. I. L. H. DeVeber, 592, W. C. England, Clyde, or London.

CHICAGO.

The Northwestern Lumberman says that the month of February was one of the most remarkable periods in the history of the Chicago lumber trade by reason of the amount of stock that was sold. Trade throughout the month was unprecedentedly heavy for the season, and towards the close doubled in some yards, and in others quadrupled.

At two yards it was stated to a representative of the Lumberman that during the last week of the month four times the amount was sold of any previous week of the month, and at one yard the sales of the last week were more than for all the other portion of the month. Judging from the reports of other yards, several could present as good a showing; and February throughout was a remarkably good month for

ROBERT W. LOWE,
AUCTIONEER AND COMMISSION MERCHANT
 81 SANDS BUILDING, PRINCE WILLIAM STREET.
 Cash advanced on Goods put in for sale. No Storage charged. All kinds of Merchandise Bought and Sold. New and Second-hand Furniture always on hand. Agent for Hazellhurst & Co's WINTHROP COOKING RANGES, WATERLOO WOOD STOVES, FRANKLIN, &c., &c., &c.
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ROBIN & SADLER

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of

LEATHER BELTING

Fire-Engine

HOSE,

Lace Leather,

Mill Supplies, &c.

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Wrought Iron Shanty Cook Stoves

The Best Article ever offered to the Trade.

I have much pleasure in drawing attention to my **WROUGHT IRON COOKING STOVE**, for Shanty, Hotel and Boarding House use. These Stoves are made of Heavy Sheet Iron, the top and lining of the fire-box being of Heavy Cast Metal and all the connecting parts of substantial Wrought Iron Work. The dimensions of these Stoves are as follows:—

SINGLE OVEN STOVE

Top surface contains six 10-inch holes, with ample room between, and one oven 18 x 21 x 20.

DOUBLE OVEN STOVE

The Double Oven has a top surface containing twelve 10-inch pot holes, with two ovens, each 18 x 21 x 20. One fire-box of suitable size for area to be heated. Below will be found Testimonials from some of the leading Lumbermen, who have used my Wrought Iron Cook Stoves since I commenced manufacturing them. They are the names of gentlemen who are well known and reliable, and will carry more weight than any recommendation of my own could do.

The Best Stove I have ever Used.

PETERBOROUGH, May 31, 1883.

ADAM HALL, Esq., Peterborough. Dear Sir,—I have used your Wrought Iron Cooking Stove in our lumbering operations since its introduction here, and have no hesitation in saying that I prefer it to any other. For durability, economy and efficiency, where a large number of men are employed, it is the best stove I have ever used. You can, with confidence, offer it to hotels, boarding houses and lumbermen.
 Yours truly, THOS. GEO. HAZLITT.

The Stove for Lumbermen.

PETERBOROUGH, June 1st, 1880.

ADAM HALL, Esq., Peterborough. My Dear Sir,—We have used your Wrought Iron Cooking Stove and find it is very satisfactory for lumber operations, especially so on drives. We can recommend it highly.
 Yours truly, IRWIN & BOYD,

Gives the Greatest Satisfaction.

PETERBOROUGH, June 3rd, 1880.

A. HALL, Peterborough. Dear Sir,—I have had the Wrought Iron Cook Stove, purchased from you, in constant use ever since last fall, and it gives the greatest satisfaction in every respect. I can recommend them highly to any one who is in the lumber business.
 Very truly yours, GEO. HILLIARD, M.P.

EVERY STOVE GUARANTEED

All the necessary **TINWARE** and **CUTLERY** for Shanties supplied at the **Lowest Prices.**

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ADAM HALL, Peterborough.

WILLIAM CAMPBELL

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 MANUFACTURER OF

Edge Tools, Axles, Springs,
 &c., OF EVERY DESCRIPTION.

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Robertson Place, Smythe Street - ST. JOHN, N.B.

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STEAM BOILERS.

SHIPS' WATER-TANKS. Repairing Punctually Attended to.

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AND ALL KINDS OF MACHINERY.

Locomotives, Stationary and Marine Engines and Boilers, Girders, Heaters, Radiators, and all kinds of Steam and Brass Fittings and Sheet Iron Work; and dealer in all classes of Railway, Steamboat and MILL SUPPLIES.

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A. LEARMONTH & Co.

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Steam Engines, Rotary Pumps, of all sizes, for Paper and Pulp Mills, Steam Pumps, and a Variety of other Pumps, Propeller Engines for Yachts & Tow Boats.

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Iron-Railings, Hoisting Machines for Stores, Jack Screws, Park Mills, all kinds of Machinery for Mines, Saw Mills, Flour Mills.

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PARKER & EVANS

SOLE PROPRIETORS OF THE

FAMOUS INTERNATIONAL

BOILER FLUID COMPOUND.

Patented 5th March, 1877.

This Compound will save its Cost many times in one year by saving fuel. It eradicates scale, and when the Boiler is once Clean a very small quantity keeps it Clean and Free from all Incrustation.

It is perfectly harmless to Iron, and emits a clear pure Steam.

In ordering, mention the CANADA LUMBERMAN.

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RELIEVE AND CURE

Spinal Complaints, General and NERVOUS DEBILITY, Rheumatism, Gout, Nervousness, Liver, Kidney, Lung, Throat and Chest Complaints, Neuralgia, Bronchitis, Incipient Paralysis, Asthma, Sciatica, Sprains, Consumption, Sleeplessness, Colds, Indigestion.

Ask for Norman's Electric Belts and you will be safe against imposition, for they will do their work well and are cheap at any price.

A. NORMAN, Esq.,

WATERVILLE, N. B.

Dear Sir,—Please send me a waist belt. Enclosed find price. Head band I got for my wife has almost cured her of neuralgia.

Yours truly,

C. L. TILLEY.

Numerous of such testimonials can be seen at my office, proving that they are doing a good work and worthy the attention of all sufferers. Circulars free. No charge for consultation.

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Drake Brothers' Box Mill,

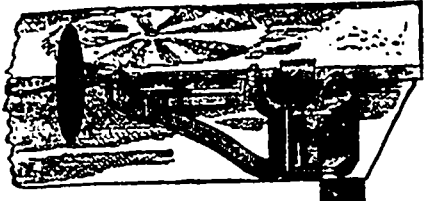
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HODGSON'S Patent Saw Grinder

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Hodgson's Patent Monitor Shingle Machine

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. Traverser of carriage to suit large or small stock, is under control of operator when running. Will run for days without cutting a shingle. Warranted to cut, with one attendant, three thousand in an hour, under forfeiture of \$100. Send for circulars to

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SAWS REPAIRED

Emerson Pattern & Lumberman's Clipper.

INSERTED TOOTH SAWS A SPECIALTY.

Every Saw Warranted.

SEND FOR PRICES.

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AMERICAN HEAVY

Oak Tanned Leather Belting

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Rubber Hose, Linen Hose,
And Cotton Hose.

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Write for Prices and Discounts.

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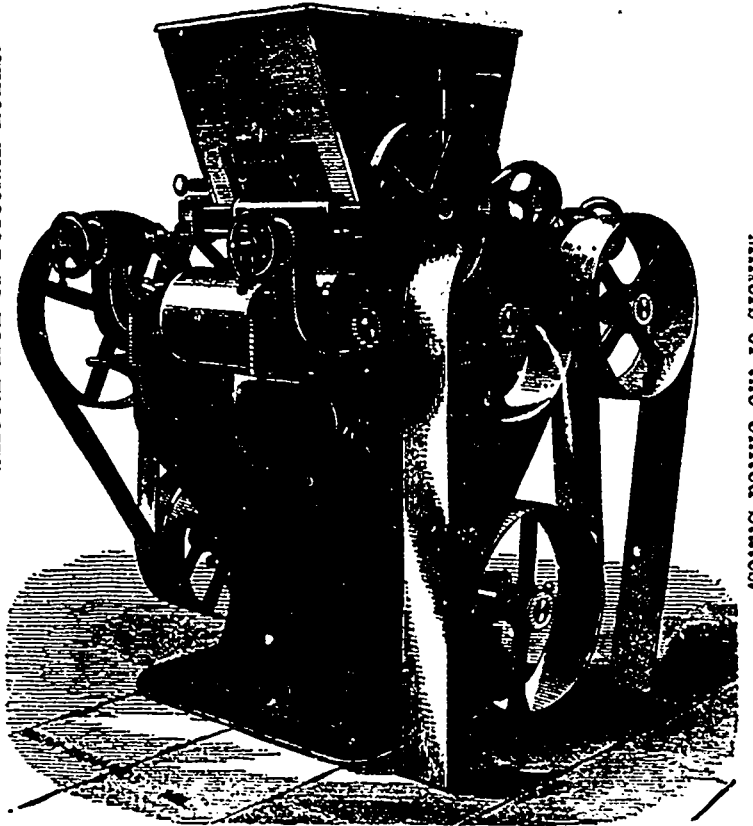
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GRAY'S PATENT NOISELESS ROLLER MILL

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Every Mill a Success!*



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Smooth Iron or Porcelain ROLLS.

These Roller Mills are used by all the Representative Millers of the United States.

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Automatic Lubrication of Principal Bearings.
Driven entirely by BELTS.
Differential Speed always insured.

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HOYT'S CELEBRATED LEATHER BELTING.
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Steam Packing of all kinds, Rubber and Linon Hose, Silk Bolting Cloth, Emery Wheels, Lacing Leather (Page's Genuine), Lard, Seal, Cylinder, Spindle, West Virginia and Wool Oils. Our Stock includes Mill Supplies and Rubber Goods of all kinds. Quotations furnished for any part of Canada.

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With Interchangeable Teeth on Teeth.

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BROWN'S PATENT SPALT MACHINE
Cuts three perfect shingles out of inch board, cuts shingles out of shab and all manner of refuse. Will soon pay for itself around any large Mill.

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BOILER-FEED PUMPS,	MINING PUMPS,
AIR AND CIRCULATING PUMPS,	PUMPS SPECIALLY ADAPTED for
STEAM FIRE PUMPS, and	OIL PIPE LINES,
WRECKING PUMPS.	And CITY WATER WORKS.

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Ore Crushers, Mill Gearing, Shafting, Hangers and Pullies, Hand and Power Hoists for Warehouses, &c., &c.,

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"Water's" Perfect Steam Engine Governor, and "Herald & Sisco's" Centrifugal Pumps

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Latest Improved Spool and Bobbin Machinery.

Every Variety of Heavy and Light Casting.

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We watch the interest of our Customers. Our stock is FULL of the very best goods in Scotch, English and Canadian Tweeds.

We BUY and SELL for Cash, therefore it enables us to do business on very SMALL PROFITS.

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We give a Good Tweed Suit for\$6 00

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DETROIT

EMERY and CORUNDUM WHEELS

These Wheels are

Wire Strengthened



And Specially Adapted

For Saw Gumming

Neither Animal nor Vegetable Glue or Gum being used in their composition, they are NOT LIABLE TO HEAT, and give out no Odors, while

They Surpass All Other Wheels for Free Cutting and Durability.

We refer to the following well known Saw Manufacturers for Opinions as to the Quality of our Wheels :

Messrs. SHURLEY & DIETRICH,
GALT.

Messrs. R. H. SMITH & CO.,
ST. CATHERINES.

JAMES ROBERTSON, ESQ.,
MONTREAL.

Messrs. JAMES ROBERSTON & CO.,
TORONTO.

WE ALSO REFER TO

WILLIAM HAMILTON, ESQ.,
PETERBOROUGH,
Manufacturer of the Covell Saw Sharpeners.

Messrs. H. B. RATHBUN & SON,
DESERONTO,
Lumber Merchants.

EMERY WHEELS FOR SAW GUMMING!



Solid Emery Wheels are now almost in universal use for the purpose of gulletting and gumming saws. Statistics show from 25,000 to 30,000 saw-mills in the United States. Many of these run only a single saw each. A one-saw mill would use one or two wheels a year, costing \$3 to \$4 each, and when such small mills order single Emery Wheels from the factory, the express charges often equal the cost of the wheel. There was a time when the quality of Emery Wheels was so uncertain, and the demand so sickle, that storekeepers could not afford to carry them in stock. Now, however, Saw Gumming Wheels have become as staple an article as Files, and every dealer in saws, Hardware and Mill Supplies can afford to carry a few dozen standard sizes in stock. Large dealers order stocks of \$500 to \$750 worth at a time. Saw Gumming Wheels are used with the edge (or face) square, round or beveled. Probably seven-eighths of all in use are beveled.

The principal sizes are:

8x $\frac{1}{2}$	} 7 in. hole.	10x $\frac{1}{2}$	} 7 in. hole.	12x $\frac{1}{2}$	} Holes, 2, 3 and 1 inch.
8x $\frac{3}{4}$		10x $\frac{3}{4}$		12x $\frac{3}{4}$	
8x $\frac{7}{8}$		10x $\frac{7}{8}$		12x $\frac{7}{8}$	
	10x $\frac{1}{8}$	12x $\frac{1}{8}$			
		12x $\frac{1}{4}$			
		12x $\frac{3}{8}$			

Probably more wheels 12x $\frac{1}{2}$, 12x $\frac{3}{4}$ and 12x $\frac{7}{8}$ are used than all the other sizes together. Saw Gumming Wheels are used, however, of all sizes up to 24x1. The most frequent complaint is that Emery Wheels harden the saw so that a file won't touch it. The answer is that you don't want a file to touch it. An expert workman will shape and sharpen the teeth with an Emery Wheel, leaving the teeth case-hardened, in which condition the saw will cut about 83 per cent. more lumber than a soft saw will. Those who want to use the file, however, have only to touch the saw lightly a second time (after going all over it once), and this second touch will cut through the case-hardened scale.

A QUESTION OF QUALITY.

Thirteen years of experience as makers of, dealers in, and actual users of Emery Wheels, have led us to a decided opinion as to what quality is the best. We prefer for almost every use an "Extra Soft" wheel like the "Pocono." We believe that money lost through the rapid wear of the wheel is more than made up by the money saved on wages. As we cannot get every one to adopt our views, we make several qualities, so as to meet their views. We say to those who think they can only be satisfied with some other make of wheels (not Tanite), that we can furnish qualities to match any and every other make. If you have got used to some special quality of wheel, let us know what it is, and we can send you a Tanite Wheel of similar quality. Our regular classification of Saw Gumming Wheels is as follows:

CLASS 2. MEDIUM-HARD.—This Wheel is the STANDARD Saw Gumming Wheel all over the world. Probably seven-eighths of all the Saw Gumming Wheels used are "Class 2." It cuts fast and keeps its shape well. Some think it too hard, some too soft. We prefer the "Pocono."

CLASS 3. MEDIUM-SOFT.—The same as to coarseness and fineness as "Class 2," but a softer, and therefore freer cutting wheel.

CLASS "POCONO." EXTRA SOFT.—This Wheel we prefer to all others. It is both finer in grain and softer than either of the above. As a Saw Gumming Wheel, Class "Pocono" is specially suited to those practical and experienced Sawyers who know how to grind with a light touch, and who want a free cutting wheel that will not create much heat.

Illustrated Circulars and Catalogue, showing Cuts of Saw Gumming Machines, and Shapes, Sizes and Prices of Wheels, sent free on application. 113

The Tanite Co. Stroudsburg, Monroe Co. Pennsylvania

CANADIAN TRADE SPECIALLY SOLICITED.

M. Covel's Latest Improved Automatic Saw Sharpener!

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

CIRCULAR SAW STEAM FEED!

I would also call special attention to my

Heavy Circular Saw Mills

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

GRAVENHURST, August 20th, 1880.

WM. HAMILTON, Esq., Peterborough.

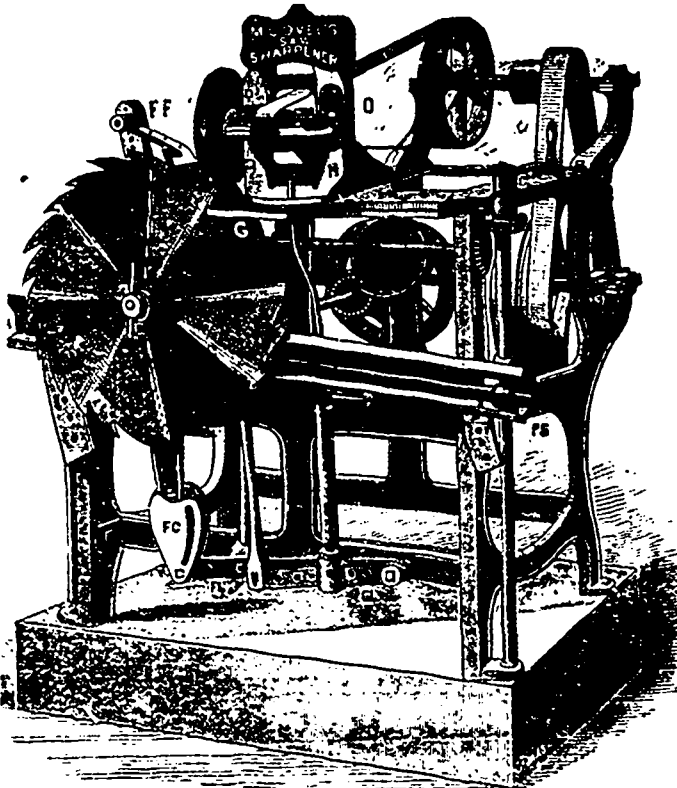
DEAR SIR—I have used your Steam Feed for near four months, and it has given me perfect satisfaction in every way; it is admitted by every person who has seen it work to be the best feed ever invented. Since I put it into my mill, I have not lost ten minutes time fixing anything belonging to it. I can cut 18 boards 13 ft. long in one minute. It can do much smoother and better work than the piston feed. It is easily governed and reverses the carriages instantly. I am thoroughly satisfied with it and can recommend it to any person who has a Circular Saw Mill for cutting long or short logs. I consider I have cut more lumber than will pay for the Steam Feed since I got it than I would have cut had I not put it in.

Yours respectfully,
WILLIAM TAIT,
Lumberman, Gravenhurst.

Toronto, August 11th, 1880.

WM. HAMILTON, Peterborough, Ont.

DEAR SIR—The Steam Feed you put in is working splendidly.
Yours, &c.,
THOMPSON, SMITH & SON.



MILL MACHINERY!

I am also manufacturing Saw Mill Machinery, for all sizes of Gang or Circular Mills, Span or Double Circulars for Slabbing Small Logs. My Patent Jack Chain for drawing logs into Saw Mills, acknowledged by all to be the Cheapest and best ever got up; also, my Patent Lumber Markers, different sizes of Edgers, Gang Lath Mills, Trimmers, Power Gummers, and all Machinery used in a first class Gang or Circular Saw Mill; also, small Hand Gummers for use in the woods, for Cross-cut Saws. Rotary Pumps of different sizes, for Fire Protection in Mills, &c.

HORIZONTAL ENGINES and BOILERS



Where economy of fuel is the great consideration, along with uniformity of speed, such as is required in Grist and Flouring Mills, Woolen and Cotton Factories, or large Factories of any kind, I supply the Corliss Engine. I feel justified in saying that our Style, Workmanship and Finish on this Engine will be no discredit to its renown, and certainly is not equalled in this country for economy of fuel. I have them working at 2 1/2 pounds of coal per horse-power per hour.

WILLIAM HAMILTON, PETERBOROUGH, ONT.