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THE CANADIAN LUMBERMAN

AND MILLERS' MANUFACTURERS AND MINERS GAZETTE

PUBLISHED SEMI-MONTHLY.

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

SUBSCRIPTION \$2.00 PER ANNUM.

VOL. I.

PETERBOROUGH, ONT., DECEMBER 15, 1881.

NO. 28.

THE timber and wood manufactures exported from the United States to Australia is officially given in the consular reports as follows:—

Timber, dressed.....	\$722,227
Other.....	54,831
Doors, sash and shutters.....	88,409
Shooks and staves.....	2,979
Total.....	\$868,446

ARKANSAS lumber is becoming a very prominent factor in the commerce of some of the western cities. The yellow pine attains great size there, and forests of it cover about 1-10th of the State. Among other valuable woods which grow plentifully and to large proportions are several varieties of oak, the black walnut, cherry, bois-d'arc, holly and maple. Besides these the cedar, beech, poplar, cypress, hickory and ash are common. Seventy different kinds of timber grow in this state.

A HEAVY deal in hemlock bark has been made by Hoyt Bros., who are now engaged in building the largest tannery in the world on Babb's Creek, near Willsboro, Pennsylvania. The location chosen is right in the heart of an almost unbroken wilderness. The equipments of the establishment will be complete, including six bark mills, which will grind a hundred cords of bark a day, and a large sawmill. The firm, to carry on this immense establishment, have made contracts for all the hemlock bark on about forty thousand acres of land.

THE white birch manufacture is attracting considerable attention in Maine. The stock is used largely for the making of spools. New mills for sawing birch are to be erected at Salem, and Scott & Hopkins, at Madrid, are using a large amount of birch in their mills, besides poplar, their stock being worked up into spools and salt boxes. This industry enables the farmers in the vicinity to make sale of timber that would otherwise have no particular value. B. F. Bachelor, of Fayette, Kennebec county, is sawing large amounts of birch, and the use of both birch and poplar in Oxford county, and other sections of the state, is becoming an important source of wealth.

THE American Ship says that in the case of eighteen timber and lumber laden vessels reported at Lloyd's as lost between the nights of October 12 and 17, not a life was lost. Some were water-logged and abandoned at sea, but the crews were taken off or otherwise saved. Of those abandoned some were afterwards picked up near land and brought to port. A water-logged vessel, laden with timber or lumber, though it may become unmanageable in severe weather, cannot sink, and the people aboard can take to the rigging, and thus have some chance for rescue. Often the vessel and cargo are saved by a passing steamer, that takes the distressed ship a tow and brings her into port.

AN IMPORTANT INVENTION.

On Saturday last, at the Alexandra Palace, London, the first public trial was made of "Wilson's Combined Low-water and Steam Safety Alarm." The operations of the apparatus are two-fold. Firstly, to give warning of the fall of water below the water line in a boiler; and, secondly, to indicate any generation of steam pressure in excess of the registered pressure. The alarm is constructed with an inner and outer cylinder, containing a float and valve spindle, safety valve, loading spiral spring to safety valve, and an alarm whistle. Should the water in the boiler be allowed to recede below the determined minimum low water line, the float immediately descends with it, causing a vacuum through which the steam passes into the alarm whistle, and so giving notice of the condition of the water in the boiler. So sensitive is the regulation of the apparatus that if as small a quantity as one quart of water is injected into the boiler the alarm at once stops and safety is restored. Again, on the other hand, should there be the slightest (half lb.) generation of steam in excess of the Government register, the pressure immediately overcomes the loading spiral spring and allows the steam to escape through the outer cylinder into the alarm whistle, thereby giving notice that too much heat is being used and fuel wasted. Simply opening the furnace door, or setting the engine in motion, is sufficient to overcome this neglect. The experiments were carried out by the inventor, and in every particular were most successful. The apparatus can be regulated and fixed to any size of boiler, marine, locomotive, or otherwise—at a very low cost. It is impossible for the valve to be in any way tampered with, as the outer casing is melted down, pegged, and sealed.

TERRA COTTA LUMBER.

One of the most important of recent practical inventions is that of the manufacture of lumber from fire clay, patented by Mr. C. C. Gilman, of Eldora, Iowa.

The process is fully described by his letters patent, from which we extract the following:—The composition consists of kaolin clay, free from grit, one part; resinous sawdust, from one to three parts, as porosity may be required; water sufficient to thoroughly incorporate the above, by machinery, into a plastic mass.

Removed from the grinding tube, where it has been ground, the spongy product is forced by plungers driven by steam through iron or steel cylinders to express the superfluous moisture therefrom, and issues forth in the shape of long blocks or logs, of length, form, and size best fitted for handling, usually eight to twelve inches in thickness, and four to six feet in length. When sufficiently dry to render handling safe, these logs are moved into kilns or clamps calculated for the purpose. After the steam and

vapors are driven out by a slow, steadily increasing fire, the temperature is rapidly increased to nearly a white heat, which not only consumes the sawdust, but brings the clay itself into the first stages of vitrification. On cooling, the logs are removed to the mill and sawed into planks, boards, and dimension stuff, as lumber from wood is manufactured, and subsequently fashioned in the workshop into such forms and articles as are demanded by purchasers. This material, being free from grit and tough in texture, can be cut, sawed, bored, planed, and carved with edged tools, and before or after such treatment can, after slipping and glazing, be submitted to a second firing, with fine results in ornamentation obtained.

Kaolin is the upper stratum of fire or feldspathic clay beds, and owing to the absence of sand or free silica is unsuited to common pottery uses, as its warpago in drying and firing unfits it for moulding purposes.

Mr. Gilman's invention overcomes this trouble, inasmuch, as the material is reduced to form with edged tools subsequent to firing.

New York's greatest present want is a fire-proofing, cheap and undoubted in its capacity for every emergency. Her stately ten-storied buildings can in a conflagration receive but little aid from the fire department, especially when Croton is as scarce as it is now.

Terra cotta lumber is indestructible by fire, gases or acids; it is a poor conductor of heat, sound, and electricity; and possesses molecular attraction to an extent which allows of plastering without first lathing.

Its weight is one-half less than common building brick, and it is erected with nails instead of cement and mortar, virtually rendering fire-proofing a work of carpentry instead of masonry as heretofore. Mr. C. C. Gilman's present address is room 71, No. 71, Broadway, New York.—*Scientific American.*

THE TIMBER SUPPLY OF EUROPE.

From an approximate summary of the timber production and trade of Europe, as given by the *Journal of the Agricultural Society of France*, may be drawn some lessons, which may be of benefit in showing the dangers threatening our timber supply, and the advantages of an intelligent public policy of preservation. A man in business cannot be expected to sacrifice himself for the benefit of posterity, but the government should see to it that such great resources should not be sacrificed in one generation. The policy of Austria has also a counterpart in that of this country. Sweden and Norway have exhausted their oak as we have almost our walnut, and, according to the *Journal*, their pine is going the way of ours. The following are the figures given by the paper mentioned above. Sweden and Norway, which still do a large export trade in deals, are now compelled to buy their oak in Poland; and in Russia the forests along the

shores of the Baltic, in Finland and in the southern provinces, are so rapidly thinning that the forest acreage of the empire is now only one in ten. There are about 34,000,000 acres of forest in Germany (of which 20,000,000 are in Prussia), estimated to be worth £500,000,000, and bringing in an income of £10,000,000 per annum. The state forests are taken great care of in all parts of Germany, in Prussia alone £100,000 being spent every year in replanting; yet the imports of timber exceed the exports by over 2,000,000 tons. The oak and the beech are the kind of trees which do best in Denmark, but the timber trade of the country is very small. Austria and Hungary have upwards of 43,000,000 acres of forest; but in Austria proper the state does not possess more than seven per cent. of the wooded area, as owing to the wasteful policy of the Ministry of Finance from 1855 to 1872 more than 5,000,000 acres were sold for sums so far below their value that there was a popular saying in Vienna, "If you want to become rich, buy state forests." The speculation came to an end in 1873, but Austria is now obliged to buy most of her timber in Bosnia and Montenegro. Servia and Roumania have no very fine forests; but Italy, though her forest area extends over nearly 14,000,000 acres, does not do much in the way of a timber trade, as the roads leading to the forests are so bad that it is almost impossible to move the timber when cut. Much the same is the case with Spain, which has 8,500,000 acres of forest; while Portugal, which has only 1,000,000 acres, finds a good market for her timber. Sweden and Norway export about £32,000,000 worth of timber every year, and at this rate their fine forests will soon be exhausted.—*Northwestern Lumberman.*

New Use of Buffalo Skins.

An inventor proposes to make machine gear wheels of raw buffalo hides by cementing and pressing together as many layers as are required for the breadth of the wheel. The blanks thus prepared are cut to form the teeth in the usual manner with suitable tools. The advantages claimed are smooth and noiseless action at high speeds and greater durability without lubrication.

River Improvement.

The *Bellefonte Intelligencer* says that at the forthcoming session of the Legislature application will be made—on behalf of the lumbermen, we presume—for power to erect dams on the streams in the townships of Tudor, Madoc and Marina, for the purpose of storing water to facilitate the driving of saw logs, etc. Would it not be possible to form a company for the improvement of the river, with the object of furnishing water power continuously to manufacturing here, to enter into this scheme with the lumbermen and so to attain the desirable object herein indicated? We commend the matter to the attention of all who are interested.

SHARP PRACTICE.

As we published the sensational account of the asserted timber discoveries by Mr. W. Mercer, C.E., we now give the other side of the story. The Northwestern Lumberman says:-

It is not uncommon for scheming to pay. In fact it often pays better than business that is conducted openly, as is proved by every day transactions, and it is not unlikely that a piece of very adroit business that has for some time been going on in pine land circles has rewarded the man who was conducting it very handsomely.

About a month ago, as the readers of the Lumberman will remember, we published the statement of Mr. William Mercer, a civil engineer, of Bay City, Mich., who had recently returned from the Spanish River district, Ontario, to the effect that he had discovered in that region a genuine lumberman's paradise. There were seas of pine, stretching beyond any government surveys even, and, according to the stories of the Indians, hundreds of miles beyond them.

While we hoped that the story might prove true, we could not swallow it without a grain of allowance. Experience has educated us up to that point that we look with suspicion upon any report of an immense timber find. To ascertain about the timber supply of the country it is not necessary to go up in a balloon, or down into the bowels of the earth. It is easily enough gotten at by a man sufficiently interested to be at the pains. There are a great many men in this country with plenty of money in their pockets, and who understand all the conditions governing timber as regarding its value for lumber, who have hunted timbered land, particularly pine lands, pretty thoroughly. We have no much faith in their knowledge of the situation that when we hear a report of a prodigious discovery of pine, right at home, we suspect at once that there is a Munchausen element in it, a suspicion that, in these late days, has never proved unfounded.

Mr. Mercer gained the ears of some gullible newspaper men of this city, and a statement of the big find was given to the world. This, on the face of it, had a bad look. It is natural enough for a man who has made a great discovery to let it be known through the press, providing it would not be more profitable to keep it to himself; and the influence of the press is often the first thing desired by a person who has a scheme on hand. It helps him wonderfully, if he succeeds in gaining it.

Mr. Mercer is an old-time lumberman, and has a host of friends among the craft in Michigan. Those friends well know that the pine of their own state is rapidly disappearing. They were born and bred to the business of lumbering, and know no other. It seems a trifle out of the natural run of things that the Canadian explorer, instead of informing his friends of his valuable discovery, should come to Chicago and disclose it to newspaper men, when he knew all the time that they would go right off and tell of it. We wondered at the time that he did not whisper it in the ears of his friends who could profit by it. The region was the richest in pine the gentleman had ever seen, although he was conversant with the trees of the cork variety that once grow on Cass river, and yielded a fabulous per cent. of uppers. This pine could be bought cheap; no doubt of that. It belonged to the Ontario Government, the Government did not even know of its existence, and an individual or government that is not willing to sell cheap what it does not know it has, is a poor financier. This is one of the phases of the great pine find that begat suspicion.

It was somewhat strange that the Provincial Government had no knowledge of such Cress-like possessions, but we excused it on the ground that so many of its young men migrate to the United States that there are not enough active men—such as can stand a tramp through the forests—left behind to find out what there really is in their country, covering the vast territory that it does.

We went to work, however, and it did not take a great amount of it to learn that the Ontario Government knew more than Mr. Mercer gave it credit for knowing. It had run its surveys around promiscuously in the great pine country. Possibly there was a strip of land

from 50 to 100 miles long from east to west, and very narrow, upon which the stakes of the surveyors had not been driven. The unsurveyed country is not more extensive than that indicated above, and the chances are against such dimensions. Then, again, somewhere away up in the unknown region, there is a settlement, and even a saw mill. The Indians had probably lied to Mr. Mercer.

Unless a leak is stopped it usually increases. This one grew larger and larger all the time. Every day, almost, brought evidence that Mr. Mercer, either knowingly or unknowingly, in giving a report of his discovery to the press, had favored the interests of parties who had laid to sell in the Laurentian region. If he did not know it, it is likely to prove a happy stroke of luck to the men who owned the land.

It has transpired that a good while before Mr. Mercer discovered the bourns from whence no lumberman would ever wish to return, on account of the fine pine everywhere abundant, it was discovered by somebody else. Mr. George N. Fletcher and other parties, of Alpena, Mich., discovered it a year ago, and doubtless other parties discovered it several years before they did. At any rate somebody owned a half dozen or so limits up there, and wanted to sell them. The Alpena parties purchased them at a cost of something like \$21,000. We do not assert that these limits were on the ground talked about by Mr. Mercer; but if there should happen to be, right adjoining those limits, other territory rich in the material of which lumber is made, those same limits might be more valuable than they would otherwise be. That is natural enough. A mine right by the Comstock lode would sell for more than though it were located in the Alleghenies. That is a business principle.

It furthermore seems that the Alpena gentlemen, for some reason, got sick of their bargain. In common parlance they had got "stuck." To start with, as it will be seen further on, they paid a pretty good price for their limits. We do not know what they intended to do with the timber upon their purchase, but as they own large mills at Alpena, it is supposable that they expected to float the logs home, and saw them there. They ought to have known it before, but come to think of it, they would be required to pay seventy five cents per thousand, crown land dues, and this assessment, it is plain, would be an addition worth mentioning, to the original outlay.

A craze for buying Canadian forests must have struck that portion of Michigan, for other Alpena lumbermen got a scent in the same direction. One gentleman contracted for some limits over there that were guaranteed to produce 150,000,000 feet, running 15 per cent. to uppers. It was denominated a fine chance to do a lumber business, but on looking the ground over he found 10,000,000 or 12,000,000, instead of 150,000,000, and a country full of ranges of rocky, steep hills and lakes. As it would cost more to get the timber out than it was worth, he sensibly declared the contract off.

It might have been owing to some such reason that his neighboring lumbermen found out that they had bought a cat in a sack. Mr. Mercer asserts that the country is well adapted to lumbering, and the Spanish river a good driving stream, but in this respect maybe the Indians had lied to him again. However, it was for some reason that the owners of the limits desired to sell them, for they approached Mr. A. N. Spratt on the subject. Mr. Spratt is a shrewd pine land operator, and, of course, refused to take the bonanza upon hearsay, but said he would investigate, so last summer he made a trip to the unknown region, and discovered it again. He ascertained that the Spanish river region is a poor one to carry on logging operations in, as the country rises to high elevations as you go back, giving to the streams, of course, numerous heavy falls. This examination led Mr. Spratt to refuse to buy the white elephant that was on the hands of the Alpena lumbermen at any price. Nothing daunted, another effort was made. Judge Tuttle, of Alpena, and Mr. Croyer Davison, of Harrisville, were applied to, to make the sale of the limits, with a strong probability of being successful, as, at time of writing, negotiations are being made with New York parties, the consideration being \$100,000.

It is for the New York parties to rise and ex-

plain, providing they have a mind to, what they know about these limits. Of all men in the world, eastern men are the ones that land sharpers like best to get a hold of. A great many eastern men have money, and are on the alert to profitably invest it. To many of them pine land is pine land, which ends their knowledge of the subject. We are ready to wager a very small sum that these New York gentlemen know no more about the lands they propose to buy, if they have not already bought them, than an infant knows about the north pole. We make this statement, for it seems reasonable to us that if their knowledge was very extensive in that direction they would give more not to own the limits in that district than to own them. But if they have staked in this regard they have company, and that is a consolation often. Not long since a land shark entered what he called pine lands, in the Lake Superior district, without having seen them, and immediately sold them to New York gentlemen, without their having set eye or foot upon them, so as to double his money. They will learn, if they have not already done so, that their "pine lands," purchased as an investment, could not be given to a practical lumberman in the Superior district.

In looking up the facts connected with Gulliver Mercer's great discovery, we learned that a Chicago pine land operator had been bit by the same shark. The trap was intended this time to be sprung by Toronto men. They had discovered the unknown country, and had limits in it to sell. They represented them as rich beyond description, and when the Chicago men had obtained their price, and the estimated production, he figured up that the timber would represent fourteen cents per thousand feet. Such a rare chance could not be overlooked. It was veritably "a soft snap," and at an expense of \$1,000, or thereabouts, experts were sent to the Spanish River district to investigate. The result, in the light of present events, is very amusing, and it may be proportionately profitable to people who are contemplating making their fortunes in the lumber business on the much talked of river.

The trip was made up the river in a light draft steamer, drawing from three to four feet of water. Canoes were then resorted to, and in the first three days only fourteen falls, from twenty to eighty feet high, had to be got around. It was a perilous attempt, and could not have been accomplished except that the exploring party had professional guides. There is some pine above the falls, and some years ago a daring spirit discovered the country and cut a lot of logs up there. There was no way to get them down but by water, and he set them afloat. They ran over one fall after another, but the strain was more than they could bear, and when the owner last saw them they were literally smashed up. Some were made brooms of, and the others were broken in two. To this day when a bluish mist surrounds the hills away up the Spanish River, it is believed it is due to an oath, that has just taken shape, ejected by the foolish lumberman.

Before starting, the guides told this pine land hunting party that their efforts would avail them naught, for there was no pine to speak of on the river, but the party, believing that the guides had been hired to tell such a story, went on their way, and found—pine, in limited quantities, but it must be, if it ever goes anywhere, to Hudson Bay. The same party also met the Canada Pacific railroad surveyors, also spoken of by Mr. Mercer, who gave the discouraging information that nowhere along the line of the projected route there pine in great quantities. The experts were glad to return alive, and, used to concluding it as they are, pronounce it the most dangerous trip they had ever undertaken. There are Grand Rapids, Mich., land-holder who can give similar testimony, if needs be.

The Bay City, Mich. paper we learn that one of the Alpena owners of the limits, of which we have been writing, called at the office of that paper and said that his land was not included in the Mercer find. Nobody has said it was; but one would suppose, taking Mr. Mercer's word for it that a man would feel proud to have the great, recently discovered country include his pine lands. It is not often, under any circumstances, necessary for a denial

to precede an assertion, and this effort to make a mouth-piece of the Bay City paper looks wonderfully like a halcyon against the exposure already made by the Lumberman of the Mercer discovery.

No one, after reading this history of the latest Canadian explorations, especially if it should be learned that the New York parties have passed over their \$100,000, will doubt that there are pine land operators who have the ability to worm themselves out of an uncomfortable position when they find that they have put their foot in it.

SALE OF LIMITS

The following are the details of the recent sale of timber limits in the Muskoka and Parry Sound districts:—

Table with columns: Berth, Squares, Purchaser, Price per mile. Lists various lots across different townships including Mowat, Blair, McKenry, Hardy, Patterson, Mills, Sinclair, Bethune, Proudfoot, Nachar, Strong, Joly, Fairbairn, and Himsforth.

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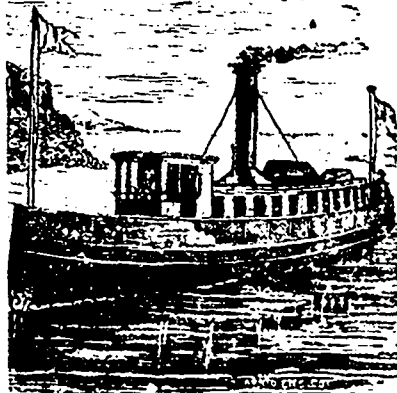
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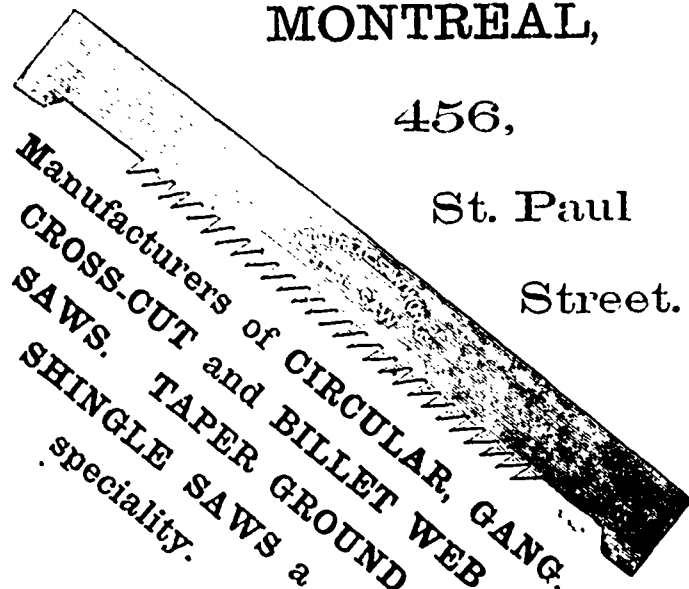
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CEDAR AND HEMLOCK.

The value of the coarser products of the forest has not been well appreciated in the Northwest until quite recently, and even now not all of them are recognized, or their utility and commercial importance apprehended.

Thus, almost worthless, as it was considered, white cedar has contributed more than \$2,000,000 to the business of Chicago during the season of 1881, and, doubtless, were the statistics of the entire Northwest available, it could be shown that the forests of the states of Michigan and Wisconsin, with perhaps a small quantity from that portion of Canada which borders on the great lakes, have aggregated, during the present year, a production of the value of fully \$5,000,000 from this same source.

The value of the hemlock forests of the Northwest has not yet adequately dawned upon the minds of those who own large tracts of it, which a foolish and short-sighted lack of appreciation is permitted to go to destruction, while it yields but a trifle of the financial benefit which it is capable of affording.

But the hemlock tree of the East has not fully ended its mission when it has yielded up its bark to the tanner, and the trunk finds its way to the saw mill as a timber second in value only to white pine, for a large portion of the uses to which the coarser grades of pine are adapted.

rats and mice would often save the price of the building in waste alone, before it had been in use three years.

The forests of Michigan and Wisconsin, as well as those of Canada, abound in scattering hemlock, and at least 1,000,000,000 feet of good timber is in those localities stripped of its bark each year for local tanning purposes, while the trunks of the trees, which might be utilized in the manufacture of valuable lumber, and at an expense greater than would be incurred in bringing them to a saw mill, are tumbled into a log heap and burned to get them out of the way.

The forests of the old world are almost wholly denuded of their tanning materials, and what is left is guarded with jealous care. The hemlock resources of the eastern states are becoming so limited as to receive a marked measure of watchfulness, those of the Northwest are yet abundant, and it behooves their possessors, in view of the recent discoveries which enable the bulky bark to be compacted into economical shape for transportation even to Europe, to conserve and protect this valuable timber, which in many respects is more available to the uses of man, and possesses an economic value of greater extent than the pine.

NEW BRUNSWICK EXPORTS OF WOOD.

The Monetary Times says the export of sawn lumber and square timber from the port of St. John forms at all times an interesting feature of our trans Atlantic trade. This year's shipments continue to be principally made by the same parties as in former years.

The lumber and timber shipment of the season from St. John to ports across the ocean, i. e., for the ten months from the beginning of the year to the end of October amounts to 179,000,000 superficial feet of deals and boards, 3,969 tons of birch timber, and 806 tons of pine timber. These are classified as under:—

Table with columns for LUMBER (Deals, batters and deal ends, sp. ft., Boards and scantlings, sp. ft., Palls, pieces) and TIMBER (Pine timber, tons, Birch, tons). Total values are listed at the bottom.

000 to Scotland, 1,200,000 to Australia. But 77,000,000 feet, or about 43 per cent. of the whole, was destined for Liverpool and London.

The proportions shipped to various ports are shown by the following list:—

Table listing shipping destinations (Bristol Channel, Continent, Glasgow, Queenstown, Liverpool, London, Belfast, Dundalk, Limerick, Londonderry, Fleetwood, Waterford, Sligo, Wexford, Newry, Droghda, Carnarvon, Cork Quay, Portrush, Dublin, Westport, Bantry, Galway, Africa, Mumbles f. o., Warrenpoint, Ayr, Australia, Dunganvan, Faversham, Wicklow, Plymouth, Clare Castle, Hare Island, Harrow) with columns for Ft. deals, &c. and Ft. boards, &c.

THE LUMBER BUSINESS IN AUSTRIA.

The following interesting letter appears in the North-western Lumberman.—

MOKRE, POST SZCZAWNE, GALICIE, AUSTRIA, October 26, 1881.

Doubtless this letter is written by one of your most distant readers, but coming, as it does, from the Carpathian mountains, now the most important forest region from which the middle European lumber markets receive their supply, it may contain some items of interest.

The greater part of the woodland in this country is fir and pine. There are also large quantities of oak and maple, and considerable beech. As the principal woods are fir and pine, all my remarks about the lumber business will have reference to those two kinds.

The saw mill business in this country, as compared with that of America, is much behind the times. The wealth of wood is immense, although when timber is bought in large quantities it is very cheap, selling at from fifty to eighty cents per thousand feet.

There are some mills here with eight and nine gangs, although the majority of them have but three or four, and as many small circulars, with benches for edging boards or cutting lath.

The logs are mostly brought to the mills on waggon, and it is seldom one sees rollways, drives, etc. The reason for this may be that wagonage is very cheap, running at from fifty to eighty cents per day for a two-horse team, though the work is often so meanly and unsteadily done that half of that money is too much to pay for it.

The average price of first-class lumber is

\$8.20; for second class, \$7, and for third-class \$5.50. Most of the mills work with small capital, and are obliged to buy the wood in small quantities and pay from \$1 to \$1.40 per thousand feet for it.

I am sure that the cost of production, as well as that of bringing the logs to the mills, by proper management, could be reduced one-half, and that an American saw mill man, with ample capital, and a well-arranged mill, could do a very good business here.

Should any of the readers of the Lumberman wish to learn more of the state of the lumber trade here, I will answer any enquiry with pleasure.

FRED BADER.

THE DULUTH LUMBER CO.

The Lako Superior News says this is the title of a new lumbering concern that proposes to take a large share in the development of Duluth's manufacturing industries. This company is organized under a charter from the State of Illinois, and will have an office in Chicago as well as in Duluth, though its main business will necessarily be transacted in the latter place.

The mill will be supplied with a circular saw and also a gang, with edgers, trimmers, steam feed, and all the latest improved machinery, and will have a capacity of 100,000 feet per day. The mill will be in readiness for business by the opening of navigation next spring, and already the proprietors have contracted for 25,000,000 feet of logs, part to be cut on the St. Louis river, and part on the South Shore.

A RESTIGOUCHE SPOOL FACTORY.

The Spool Factory of Messrs. C. G. Beckwith & Co., at Jacquet River, Restigouche County, which was destroyed by fire a short time ago, is being rebuilt and will be ready for operations in a few weeks. The new building will be a much more substantial structure than the former one, and better adapted for the purposes for which it is intended in many respects.

at present employed in the work of construction, but the number of hands kept at work when the factory is in operation exceeds this considerably. A great deal of employment, too, is given to farmers in this neighbourhood hauling wood to it during the winter. The new settlement around the factory is to be called Beckettville. —*St. John, N.B., Sun.*

SHEER BOOMS.

During the past season the sheer booms introduced by Mr. L. W. Pond, of Wisconsin, on the Upper portion of the St. John River and its tributaries, have been subjected to a practical test, which has demonstrated their usefulness in a high degree; in fact, the sheer booms have revolutionized the running of logs down river to the rafting grounds of the Fredericton Boom Co. Till the introduction of Mr. Pond's invention, the logs, set afloat by the spring freshet, helplessly followed the course of the current down stream, and were, as the water fell, or through the action of the wind, deposited by thousands on bars and heads of islands, and, where the shores were low, were scattered in land over miles of intervals, from which their removal often cost more than the logs were worth, besides subjecting the company to damages for injuries done to the meadow lands. The work of following the drives down and sacking the shores was therefore one of the most expensive portions of the river operations. Pond's sheer booms have practically cut this down to a minimum, the *modus operandi* being as follows:—Sheer booms are placed at the heads of the islands and shoals, and wherever the set of the current would carry the logs over the low banks, at such angles that the logs striking against them are shot out again into current and so carried on successively past each old resting place in safety to Fredericton. In this way the main drive is kept moving while the water is high and all the logs are got to market, whereas, under the old method, a sudden fall of water would leave the shores and out of the way lodging places lined with thousands of logs. Full advantage can also be taken of a sudden rise of water in midsummer or fall, to rush through logs that had been hung up earlier in the season. The extraordinarily large run of logs during the past season proved, beyond doubt, the great benefit these booms are to the lumber operators along the upper St. John, and this test will doubtless have the effect of introducing them on other rivers in the Province. Mr. Pond is now arranging to put his sheer booms on the Restigouche next season, with every prospect of success; and it is not unlikely that, at no distant day, they must be working on the Miramichi. —*St. John, N.B., Sun.*

THE DURABILITY OF REDWOOD.

Mention was made in a recent issue of this paper of the suitability of redwood for wine casks. Messrs. Fulda Brothers, of San Francisco, tells us that redwood casks have been used in California for many years; indeed, two thirds of the vast wine crop of that State is fermented and stored in casks and tanks made of this timber. The casks simply require to be slightly steamed and well soaked to remove the color; after that the fermentation of the wine does not extract any color or taste.

The trade in redwood is becoming of considerable importance, a great deal being shipped eastward to Denver, Omaha, Kansas City, and the Atlantic coast as far as Rhode Island.

The wood is specially valuable in situations which occasion rapid decay in other timber. Seventy years ago the Russian Fur Company erected a redwood stockade at Fort Ross, Alaska. The posts were cut down level with the ground some years ago, but the buried parts remain perfectly sound, excepting the thin layer of sapwood near the bark, the alternate soaking and drying of seventy years having no injurious effect upon the heart wood. A piece of one of the posts, with a certified statement of its history, was sent to San Francisco a few weeks ago. The sender, Mr. G. W. Coll, of Fort Ross, states that he knows of shoots from old stumps which have grown to be three or four feet in diameter in forty years, indicating a hopeful restorative power in redwood forests under favorable conditions.

The redwood in demand in California for underground uses is what is known by the lumbermen as "black-hearted redwood." It shows a dark color when cut with a knife, the outer layer only becoming "seasoned." "Black heart" is exceedingly heavy too heavy to float. One who has observed schooner-landing at chutes along the coast tells the *Pacific Rural Press* that a post of this wood which plunges overboard never rises, and a board lingers on the surface a moment and then slowly slides down into the depths. This is the sort which is sought for in foundations, and under brick walls is believed to be imperishable. —*Scientific American.*

A New Species of Horse.

The *Annals and Magazine of Natural History* for July contains a translation of a Russian paper, in which M. Poliakof brings forward a mass of evidence in proof of the existence of a hitherto unknown species of horse, not far from Zaisan, in Central Asia. The animal appears to resemble a small domestic horse, of a dun color; its head is large in proportion to the size of the animal; and the root of its tail is destitute of long hairs for some distance. M. Poliakof names his supposed new species *Equus Przewalskii*, in honor of the traveler who brought the skin to Russia. He regards it as a true horse, and remarks that "if it were possible to prove that culture influenced the growth of the tail, and that this became more hairy, and the mane longer, under altered conditions of life," it might be affirmed that "it was indeed the animal whose ancestors were reclaimed by man in the stone period, the so-called domestic horse of our day."

Preserve the Forest.

The *Monetary Times* says the time has come for paying greater attention to the remains of our forest wealth, be it great or small. Each province has a Crown Lands Department, but the object of these departments has hitherto been rather to sell than to preserve the timber. Great attention is paid to forestry on the continent of Europe, where forest literature has reached extensive dimensions. Our forest literature has yet to be written, and apparently we shall begin seriously to study the subject about the time when we have cut down or burnt up our last forest. The United States is becoming alive to the daily increasing necessity for the preservation of its forest wealth. It is useless to regret the wholesale destruction that has been practised in the past, the one thing needful is to repair it so far as the future needs of the country may require. This work has been commenced in the States; we shall do doubt follow at a greater or less distance.

A Labor Saving Appliance.

Knapp, Stout & Co., with mills at Menominee, Wis., give the following description of the machinery with which the rafted lumber is taken from the water at its yards at St. Louis, Mo. —We are now operating our pulling machine, and when completed we will be able to handle with it 500,000 feet daily. The track, with six rails, runs out into the river below the low water mark, and back about 200 feet from the shore. On top of the main car, which is 16x44 feet, is another car, 10x32 feet, on which the crib is floated, and then drawn out by machinery and pulled off at right angles from the main track, thus keeping the track into the river, for another top car can be run back to the river for another crib. Our cribs of lumber are 16x32 feet by 50x26 inches deep, and weigh 30 tons. We use a pair of 10x20 inch engines for pulling out the car, and a small engine for transferring. We use a large pump and hose for washing.

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When rubber rings are used for steam, gas, and other pipes, the following cement can be employed to prevent any escape. —Resin is pulverized and mixed with ten times its weight of strong ammonia. A viscous mass is obtained, which liquifies by itself after three or four weeks. This mass adheres very well to rubber, as also to iron or wood, and when the ammonia volatilizes the cement hardens and becomes impermeable to gases and liquids.

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



DEVOTED TO THE LUMBER AND TIMBER INTERESTS OF THE DOMINION.

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

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

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

PETERBOROUGH, Ont. DEC. 15, 1881.

ATTENTION.

With this issue we complete the first volume of the CANADA LUMBERMAN, as well as the year 1881. In doing so the publishers desire to return their thanks to all who have aided them by their countenance and support since they undertook its management. To render the CANADA LUMBERMAN the success which the publishers desire, and, what is of more consequence, of real benefit to the trade, they are of opinion that two things are absolutely necessary to this end, and these are,—a greater readiness on the part of those engaged in the trade to furnish us with information for publication, and generally a greater promptitude in the payment of subscriptions.

But now, for instance, we conceive it would be very desirable, and very much in the interest of the trade, if we could place before them a tolerably reliable and full statement of the stocks of lumber, shingles, logs, and square timber in manufacturers' hands from the cut of the season of 1880-1, on the first of January, 1882. Of course in the present instance we would have no similar records for previous years with which to make comparisons, and to draw conclusions from, but it would still be of considerable value, and it would be the beginning of a record which would prove of great value in the future. Under existing circumstances such a statement, however, can only be obtained by each one engaged in the trade undertaking to forward us a brief memorandum of the stocks held by himself, and by his neighbours, where he can do so, from other information than mere guess-work, as data from which we might make up a brief statement. As the labor involved in collating and comparing such returns will be considerable, we would suggest, as a matter of convenience, that the senders should state first the particulars with regard to their own holdings, or those firms in which they are interested, secondly the same particulars with regard to the holdings of others with which they are familiar, and thirdly their general opinion as to the relative stocks on hand now and a year ago, and the probabilities for the season upon which we have entered. If each one would only do this

for himself, they would furnish us, and in that way obtain for themselves, an amount of information which could not fail to be of considerable value, without materially trespassing on their holidays. Will they try?

With regard to the second point, by reference to the labels on their papers, they can see just how they stand. For instance, when they find "2 Oct. 81" following their name it requires two dollars to pay their subscription up to the 1st Oct. last, and the same way whenever a figure precedes the month. If they have paid they will find, or should find, the figure "0" before the month on the label. In fact whenever they find a figure before the month on their label, they are indebted to us for that amount, and although the amount, of itself, is small, yet they amount to such a large sum in the aggregate that, if paid, it would send us on our way rejoicing.

In conclusion we beg to take this, the first opportunity we have had, of wishing a constituency extending from Nova Scotia to the Rocky Mountains a Merry Christmas and a Happy New Year, and to express the hope that it is only the first of many occasions upon which we will have the pleasure of doing so.

VALUABLE SUGGESTIONS.

We beg to call the especial attention of our readers to the article headed "Suggestions from Maine," which we have reproduced in this issue from the *Northwestern Lumberman*. It appears that in this neighbouring State they have in a measure solved the problem of perpetuating the supply of lumber from their forests. Our readers may well consider whether we in Canada may not learn something from this example. In some portions of our forest lands some such plan, properly modified, might well be adopted.

THE timber trade out of Hamilton increased considerably this year, and it seemed as if we had indeed returned to the good times of old to see the many cargoes and rafts of timber which left Hamilton during the past season. It is hoped they will still be more numerous next year.

THE timber limits, mill site, and dock at Batchewana Bay, on the North Shore of Lake Superior, which were offered for sale by public auction in Toronto on the 8th inst., failed to find a purchaser. Only one bid of \$10,000 was offered, and, this being below the reserve bid, they were withdrawn.

THE Upper Ottawa Towing Company, which has recently been organized for the purpose of navigating the Upper Ottawa and its tributaries, have acquired four of the steamers of the Union Forwarding Company, and intends constructing three new boats which will be ready for the opening of navigation. The fleet will be principally engaged in towing timber and saw logs, but passenger boats will also be put on the route.

A RECENT telegram from St. John, N.B., says there is plenty of snow in the woods on the upper St. John and its branches, and the lumbermen are now fairly at work. The estimated total of the lumber to be cut on the upper St. John this winter is 65,500,000 feet. This, however, does not include the operations on the Arrostook and the Tobique, which will swell the aggregate to not less than 90,000,000 feet. This is about three-fourths of the amount usually obtained.

A GREAT forest of long leaf pines covers more than one third of the area of Mississippi. This vast forest, taking into view the quality and use of the wood, the inexhaustible supply, the great height and size of the trees, is an enormous store of undeveloped wealth. There is no other such pine forest to be found in the world. As far back as 1753, France supplied her navy with masts and spars from this forest. It is penetrated by numerous water-courses, which are capable of floating the timber to the gulf coast for a distance of about 100 miles. It stands next to coal for fuel in factories and machine shops, and yields turpentine more abundantly than any other species of pine.—*Lumberman's Gazette*.

THE Quebec Timber Company intends to apply to Parliament for an Act of incorporation.

MR. B. YOUSSEF intends to have 100 men in the lumber woods, Halfway River, and head of River Hebert, during the coming season, in Cumberland County.

THE Bangor, Me., *Commercial* says the finishing up of the season's sawing, the sending of teams to the woods, purchasing of supplies, employing of laborers and preparing the mills, lumber goods and logs for winter, make this the busiest of all busy seasons for our lumbermen. The winter's operations will not be as heavy as last year, owing to the increased cost of labor and the low price of lumber.

MR. William Mackey, of Ottawa, accompanied by his son and another gentleman paid a visit to Peterboro' last week, for the purpose of inspecting Messrs. Irwin & Boyd's mill, and gathering information about saw mill machinery, as Mr. Mackey is about erecting a new mill on the Ottawa. In the course of the day Mr. Mackey also visited the shops of Mr. William Hamilton, and was so well pleased with what he saw there and we have no doubt but that the visit will lead to business. We may add that this was Mr. Mackey's first visit to Peterborough and that he was induced to make it solely by what he had seen in the *Canada Lumberman* with reference to Messrs. Irwin & Boyd's mill and the manufactures of Mr. Hamilton.

THE *Northwestern Lumberman* says that Bond & Jenkins, some time since, had a quantity of lumber burned on the dock at Oswego, N.Y. The lumber was shipped from Canada, and the duties or it had not been paid. The firm informed Collector Fort, of that port, that they did not wish to pay customs duties on the burned lumber. The collector insisted that the payment must be made, and at length Bond & Jenkins appealed to the treasury department at Washington for a decision in the case. A reply was received from the department that duties on the burned lumber need not be paid; and there was where Bond & Jenkins had the advantage of Mr. Fort. This decision might be considered a test case.

THE *Timber Trades Journal* says that the trade in imported house joinery is assuming large proportions, judging from the steadily increasing supply coming forward both from the Baltic and America. The door trade especially is reported to be brisk, and it is becoming quite a department of the timber merchant's business to keep a stock of these goods. Consumers find it very convenient to buy doors, windows, &c., ready made, thereby saving the trouble and delay of manufacture, although it is questionable whether they could not be made cheaper at home, when heavy railway carriage has to be taken into account. In pine doors we are pleased to hear that Canadian goods appear to be finding great favor, being as a rule well finished off, and thoroughly well seasoned and glued together. The colonials now supply a good door, moulded on the solid, giving all the advantages in appearance and wear possessed by an ordinary moulded door at the same price as a square one of the same dimensions.

OUR FOREST WEALTH.

THE realization by the Ontario Government of over seven hundred thousand dollars, in a single day, for the privilege of cutting timber on the public domain, should of itself, be sufficient to induce the adoption of prompt and vigorous measures for the protecting of our forest wealth. Large however, as is the sum which has been obtained at the sale of the 6th inst., it is after all but a moderate portion of what the Province is likely to receive for the same, and but a very small portion of what it will undoubtedly receive, can the timber now on this twelve hundred odd square miles be protected from its great enemy—fire.

It is true that at the instance of the present commissioner of Crown Lands—Mr. Pardee—the Ontario Legislature some years ago placed on the statute book a measure designed to prevent the setting out of fires during the danger-

ous seasons of the year, but however good that act may be, it has remained practically a dead letter, owing to its being made the duty of no person or persons to see it enforced, and we believe it will continue so unless the Government appoint proper persons for that purpose. That the importance of the interests involved will justify any reasonable expenditure for such a purpose will not for a moment be disputed.

As matters are now going the day cannot be far distant when the valuable patrimony which we inherited from past ages in our forests will be a thing of the past.

Timber, like that for which we are just now receiving annually large sums, and which directly and indirectly is giving so much employment to our people, is not produced in two or three life times, it is therefore bound to decrease quite rapidly enough under the lumberman's axe, without adding to its depletion by wanton fires, which might be largely prevented by the adoption of proper measures to that end, and by excluding settlers from our pine lands. Of course we are aware that there are those who will cry out against this latter suggestion, but that does not compensate for the millions that have been lost, or prevent the country from being large losers in the way of revenue and employment, by the Government encouraging indiscriminate settlement. The high bonuses already paid and the dues still to be paid for some of the limits sold last week prove, that much of these lands is worth infinitely more to the country for the timber that now stands upon them than the settlers could be, even if a prosperous one could be placed on every hundred acres—a thing which is impossible, because it is notorious that the best pine lands are the least adapted to the wants of the settler—unless he be a timber shark.

Moreover, the encouragement of indiscriminate settlement and a failure to protect the timber from the brood is a great injustice to the men who invest their money in these limits, as well as the Province. High as the prices realized at the recent sale were, they would undoubtedly have been higher, had the purchasers been guaranteed reasonable protection against the destruction of the timber they were purchasing. Indeed the great risk run from this cause every year that it is allowed to stand, compels its owner to cream it as quickly as possible in order to secure himself against loss, notwithstanding that such a course is wasteful of valuable timber, and calculated to depress the lumber market.

It is to be hoped that the importance of this subject will no longer be overlooked by the powers that be, but that speedy and efficient measures will be adopted whereby the most may be made out of our forests, and the evil day when they will cease to yield an income to the Provincial exchequer, and afford employment to our people be postponed as long as possible.

GOVERNMENT SALE OF TIMBER LIMITS IN MUSKOKAS.

The Legislative Chamber in the old Parliament Buildings on Front street is a quasi-sacred place. When the legislature is in session we go to the unlucky wight not wearing M.P.P. after his name who ventures therein! He is immediately pounced upon by the sergeant-at-arms and borne away no one knows whither, perhaps to the dungeon or the tomb. But on Tuesday, Dec. 6th, the gloomy old chamber wore a different aspect. If you had dropped in shortly after noon you would have seen the speaker's dias occupied, but not by the speaker, and the member's chairs filled, but not by the members. The occasion was the rarely-occurring one of a sale of timber limits by the Ontario Government, and the occupant of the dias was Mr. G. B. Cowper, of the Crown Lands department.

THE AUCTIONEER FOR THE NONCE, who wielded an ebony ruler instead of the customary gavel, while filling the chairs and spreading over into the ladies' gallery were leading lumbermen from all parts of Ontario, or those who were acting in their behalf. At the side of Mr. Cowper sat Hon. Mr. Pardee, commissioner of crown lands, in general supervision of the sale. Among

THOSE PRESENT

connected with the lumber trade were Cook

Brow and McArthur Bros., Toronto; J. R. Booth and R. Nagle, Ottawa; J. C. Miller, Parry Sound; E. W. Rathburn, Deseronto; J. Cockburn, Gravenhurst; J. L'etrie, Guelph; T. Murray, Pembroke; J. Bonfield, Eganville, besides several American buyers from Bay City, Saginaw, Tonawanda, and other places. The gentlemen from the other side, however, did not invest to any great extent, the large majority of the berths going to Canadian firms. Besides those engaged in the lumber business were one or two Toronto lawyers, who bought largely in the interests of other parties.

HOW SALES ARE CONDUCTED.
A sale of timber limits is not an everyday affair. The law, with a wholesome fear of what might occur under the stress of "party exigencies," does not permit timber limits to be disposed of in the usual way as lands for settlement purposes. The latter may be bought at any time, but the former can only be obtained when the Crown Lands Department brings on a sale, which must be by public competition. Hence the crowd of lumbermen and others on Tuesday, anxious in the present prosperous state of the lumber trade to obtain limits, and knowing that this would probably be their last chance for years to come. The last sale of timber limits by the Ontario Government was in 1872, when over \$500,000 was realized. On Tuesday timber berths in the townships of Mowat, Blair, McConkey, Hardy, Patterson, Mills, Sinclair, Bethune, Proudfoot, Gurd, Machar, Strong, Joly, Laurier, Pringle, Lount, Nipissing and Himsworth, all in the Muskoka and Parry Sound districts, were offered for sale. The limits aggregated

1,411 SQUARE MILES; berths amounting to 130 square miles were withdrawn, the reserve bid not being reached, and the remainder sold for a total of \$717,176, or an average per square mile, exclusive of ground rent, of \$500. This is a most remarkable showing, and the significance of the figures will be realized when it is stated that at the last sale, which was held by the Quebec Government, the average was only \$98, while the sale held by the Ontario Government in 1872 produced an average of only \$199. The bidding on Tuesday afternoon was at the outset slow and backward, the first couple of berths being withdrawn, but it quickly grew rapid and lively, and in some instances very large figures were reached.

THE HIGHEST PRICE PAID
was for berth No. 2 in the township of McConkey, which was knocked down to Mr. J. M. Martin for \$2,500 per square mile, or a total of \$10,000; berth No. 1 in the township of Joly was sold to Mr. J. L. Burton for \$42,550, or \$2,300 per square mile; No. 4 in Nipissing to C. A. Brough for \$28,875, or \$1,510 per square mile; No. 3 in Mills to the same gentleman for \$25,381, or \$1,410 per square mile; No. 3 in Joly to J. Bonfield for \$21,900, or \$1,200 per square mile; No. 1 in Strong to McArthur Bros. for \$11,000, or \$1,100 per square mile; No. 3 in Himsworth to J. R. Booth for \$17,760, or \$1,110 per square mile; No. 3 in Sinclair and No. 1 in McConkey to Cook Bros. for \$14,840 and \$22,837, or \$1,060 and \$1,070 respectively per square mile. The lowest price reached was for No. 3 in Mowat, which was sold to T. G. Blackstock for \$937, or \$50 per square mile. The sale altogether was

A MOST SUCCESSFUL ONE, fully realizing in the matter of prices the expectations of the Government. As the law formerly stood, limit holders had only five years in which to remove the pine from the lands which they had under license, any timber remaining after that time belonging to the settler, but at the last session of the legislature an Act was passed under which a licensee on payment of the ground rent (\$2 per square mile) and dues may renew his license from year to year, the Government after a certain number of years paying to the settler a percentage of the dues collected upon the timber cut. The disparity between the prices paid for different berths is of course accounted for by the variety in the quality and quantity of pine, the facilities for floating down streams, acreage burnt, etc.

NO INFORMATION respecting the quantity of pine on the various berths, etc., was furnished by the Government, and intending purchasers had to make an exami-

nation for themselves of such limits as they wished to buy. As one fact is of interest, we put it when the sale was drawing to a close, and the auctioneer remarked in the closing moments of the room, "We will have a look at the afternoon." Lumbermen were generally to know what they are doing, and those at the sale on Tuesday did not take any of those exceptions to the rule. As a matter of fact all the firms sent out experts to examine the several berths, and of course the reports made thereon were kept a profound secret. A soon, however, as the berth was knocked down the lumbermen would tell one another what their report was. For instance, one berth on which there was considerable competition was reported to one firm as being equal to three-quarters of a million feet per mile, and another firm had it rated at one million. One gentleman, however, nearly caught himself in the matter of a bid. One limit which was going up by \$10 bids, and had reached the sum of \$2,000, when the audience was suddenly surprised to hear him ejaculate "\$3,600." This, of course, put a stop to all further competition, and the berth was knocked down to him for that sum. It turned out, however, that the bona fide buyer had only intended to advance the usual \$10 and say "\$2,100." The limit was accordingly put up again and ultimately sold to another for \$2,300.—*Toronto World.*

THE frame work of the knitting factory on Goderich street, Halifax, is fast approaching completion. The manufactory will give work to some forty or fifty hands.

M. LEGRU, the Paris capitalist, now in Quebec, says that fifty millions of francs have been subscribed in France for investment in local industries in Quebec Province.

ONE EXPERIENCE FROM MANY.—I had been sick and miserable so long and had caused my husband so much trouble and expense, I seemed to know what ailed me, that I was completely disheartened and discouraged. In this frame of mind I got a bottle of Hop Bitters and used them unknown to my family. I soon began to improve and gained so fast that my husband and family thought it strange and unnatural, but when I told them what had helped me they said "Harrah for Hop Bitters" I hope may they prosper, for they have made me feel well and us happy.—*The Mother. — Home Journal.*

A RELIABLE FACT.—It is an established fact that Hagar's Pectoral Balsam is the best cure for coughs, colds, sore throat, asthma, croup, bronchitis, and all troubles arising from neglected colds. Price 25 cents.

DECLINE OF MAN.—Impotency of mind, lumb or vital function, nervous weakness, sexual debility, and all diseases caused by indiscretion and abuse, are radically and promptly cured by the use of Mack's Magnetic Medicine, which is for sale by all responsible druggists. See advertisement in another column.

WEAK LEGS AND HOW TO MAKE THEM STRONG.—Breathe with the mouth closed, have access at all times to pure air, exercise moderately, eat nourishing but simple food, and take that best of all cough remedies, Hagar's Pectoral Balsam, it speedily cures all throat and lung troubles of adults or children. Price 25 cents per bottle.

WHEN DOCTORS DISAGREE, WHO SHALL DECIDE?—Nothing is more variable than the different opinions of medical men; but when they fail to agree, or perform a cure in a chronic disease, the patients often decide for themselves, and take Burdock Blood Bitters, and speedily recover. It is the grand key to health that unlocks all the secretions, and liberates the slave from the captivity of disease.

HAGAR'S YELLOW OIL will be found invaluable for all purposes of a family medicine. Immediate relief will follow its use. It relieves pain, cures chilblains, frost bites, scalds, burns, corns, rheumatism, neuralgia, etc. For internal use it is none the less wonderful. One or two doses frequently cure sore throat. It will cure croup in a few minutes. A few bottles has often cured asthma. Colic has been cured by a teaspoonful dose. It cures with the utmost rapidity. It is really a wonderful medicine.

NO IMPOSSIBILITY.—People often say, when suffering in the first stages of consumption, or suffering from lung disease, if their physician fails to effect a cure, "my case is a hopeless one, and my enjoyment of health again is an impossibility." The celebrated French Count Mirabeau's nasty temper is well known. "Monsieur le Comte" said his secretary to him one day, "the thing you require is impossible." "Impossible!" exclaimed Mirabeau, starting from his chair, "never again use that foolish word in my presence." It is well-known that N. H. Down's Vegetable Balsamic Elixir has brought to health and strength thousands who were told by doctors that their recovery was impossible. Be not deceived by any apparent impossibilities; always use the Elixir.



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THE GREAT ENGLISH REMEDY for Nervous Debility and all Nervous Affections, including Spermatorrhoea, Seminal Weakness, etc., result of Self-abuse, Indiscretion, &c. It is GRAY'S SPECIFIC MEDICINE. This is the only remedy which has ever been known to permanently cure Palpitation and other affections of the Heart, Consumption in its earlier stages, Rushing of blood to the head, Wind in the Stomach, Indigestion, Loss of Memory, Want of Energy, Fashfulness, Desire for Solitude, Low Spirits, Indisposition to labor on account of weakness, Universal Lassitude, Pain in the back, Dimness of Vision, Premature old age, etc. Full particulars in our pamphlet which we send securely sealed on receipt of a 3 cent stamp. The Specific is now sold by all Druggists at \$1 per package, or 6 for \$5, or will be sent free AFTER TAKING by mail on Receipt of money by addressing **THE GREY MEDICINE CO.,** 3 Mechanics Block, Detroit, Mich. 2113

There is no excuse for suffering from **CONSTIPATION** and a thousand other diseases that owe their origin to a disordered state of the Stomach and Bowels, and inaction of the Digestive Organs, when the use of

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will give immediate relief, and in a short time effect a permanent cure. After constipation follows Biliaryness, Dyspepsia, Indigestion, Diseases of the Kidneys, Torpid Liver, Rheumatism, Dizziness, Sick Headache, Loss of Appetite, Jaundice, Apoplexy, Palpitations, Eruptions and Skin Diseases, etc., all of which these Bitters will speedily cure by removing the cause. Keep the Stomach, Bowels, and Digestive Organs in good working order and perfect health will be the result. Ladies and others object to SICK HEADACHE will find relief and permanent cure by the use of these Bitters. Being tonic and mildly purgative they **PURIFY THE BLOOD** by expelling all Morbid Secretions.
PRICE 25 CTS. PER BOTTLE.
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Ask your druggist for Hop Bitters and try them before you sleep. Take no Other.
D. J. C. is an absolute and certain cure for Drunkenness, use of opium, tobacco and all vices.
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SUGGESTIONS FROM MAINE.

It was given out fifteen or twenty years ago that the lumber producing capacity of the state of Maine was nearly exhausted, and the time was fixed, by those learned in forest lore, when the last mill would be shut down, the occupation of the Maine lumberman would be gone, and the prestige of that political division of the republic known as the Pine Tree State would linger over it only as a memory. In truth a part of this prophecy has come to pass, for a large proportion of the pine of Maine has been exhausted, and spruce is now the great dependence of the manufacturers. Yet a good deal of pine is still cut in that state, and the supply is likely to be prolonged by a system of economy that is the genius of eastern industry, and is but little appreciated or practised in the West. This economy is habitual in all lumbering operations in Maine, and pertains to the cutting of spruce, hemlock, and other timbers, as well as to pine. Its peculiarity is that the largest timber is cut first, while the smaller is left, and carefully preserved to grow for a future supply. In this way the timber lands of Maine have been repeatedly cut over, to a large extent, at least. Yet a stranger passing through these same forests would scarcely recognize the fact that they had supplied the eastern cities for years with millions of feet of lumber, for the growth of trees still thickly covers the land. It is only by observing the stumps that are here and there scattered amidst the standing timber that one would begin to realize that these silent and sombre woods once echoed with the ringing sound of the axe, the crash of falling trees, and the shouts of loud-voiced teamsters. So well have the economy of man and the forces of nature done their work, that the forests of Maine still maintain their primeval appearance, and promise to supply the sturdy woodsman with employment for an indefinite period to come. As a leading land owner recently put it to the writer, with a latitude of faith, "With the present system continuously practised, the timber supply in Maine will last to all eternity."

The advantages derived from this system of forest preservation are worthy of consideration in localities where a more careless method is pursued. One advantage is that timber becomes a source of repeated revenue, as crop after crop is taken from it. First the larger growth of pine is assorted out; then the larger growth of spruce, perhaps; then the hemlock can be cut. In a few years this process can be repeated, the growth of the timber constantly creating a supply of larger trees. This development of supply is peculiarly conserved and stimulated by itself. In other words, none of the land being wholly denuded of forest, the humidity and wealth of the soil is preserved, and fires do not sweep over the country, as in Michigan and Wisconsin, destroying the timber, root, trunk and branch. It is indeed stated that a devastating fire is impossible in the state of Maine, and certain it is that we have no knowledge of such wide-sweeping conflagrations as have devoured the forest wealth of Canada, Michigan and Wisconsin. Here is a practical example of that kind of forest preservation that the advocates of forestry laws would see generally adopted and enforced.

In Maine the individuals directly associated with the lumber and timber interests are grouped in three classes:—The owners of the lands; the operators, or those who get out and sell the logs, and the manufacturers. Of course these classes often intermingle their interests. The land owners, however, form the most distinct class, and are the autocrats of the situation, as the landlords usually are. They are men of capital, and are a long-headed community. They are the possessors of the foundation of the lumber interest, and are content to bide their time. They value their lands for the timber they will produce, and intend to make the most of it, as the system which they pursue, already indicated, abundantly shows. They found out, years since, that the farmer does not seek a settlement on their timber tract, but prefers, instead, to emigrate to the West. The soil, though rich, is not abundant, a large portion of the surface being occupied by rocks. It is thought too, and probably with truth, that the prohibition legislation of Maine has acted as a

deterrent to many foreign emigrants who would otherwise settle in the state. Certain it is that the hardy Scandinavians or Germans could make themselves comfortable homes in the Pine Tree State as quickly as anywhere else, and secure the benefits of nearness to profitable markets, as well as greater nearness to the Fatherland. A heavy land owner of Bangor, who was himself a temperance man, and not opposed to anti-liquor legislation, admitted to the writer that he had no doubt but that the Maine law had prevented many foreigners from settling in that state. He even said that, under the circumstances, he never expected to see the forest lands of Maine cleared and settled, for this prejudice against the sumptuary law of the state had got abroad, and it would be nearly impossible to destroy it; and the rugged lands of Maine must be settled by foreigners if at all. No doubt this fact of the unmarketableness of the wild lands of Maine has prompted the owners of it to make the most possible of its timber resources.

The general practice is for the owners of the land to sell permits to the operators to lumber on their property. It is usually owned by townships, and the boundary lines of these local divisions mark the disposal of limits. The choice of townships, both as to ownership and the granting of permits, is of course determined by their nearness to streams or lakes suitable for getting logs to the mills. The Maine lumberman is quite particular about this, and looks with disfavor upon lands that a Michigan or Wisconsin operator would think quite accessible—by means of a logging railroad if by no other. Some of the remoter sections in the northern part of Maine are regarded as of little value by both owners and operators, and they do not even make an effort to stretch their imaginations to the time when the demand for lumber and the building of railroads will make these far away districts available. It would seem that here the "Downeaster" is less sagacious than his Western compeer; for the latter is already ranging the mountains of Montana for timber prospects, or hunting pine half way from Lake Superior to Hudson Bay.

In selling permits to operators to cut timber it would seem at first blush as if they conferred upon the purchaser an unlimited privilege to cut and slash according to his own free will, to the most reckless destruction of timber, a result directly opposed to the preserving policy that has been heretofore indicated. But here profit steps in as a conservative element. The operators, in order to realize as much as possible on an operation, must cut all the largest timber, discarding the smaller growth. Though the permit grants them the privilege of cutting as much as they wish within certain specified boundaries, it does not require them to cut more than they desire; in fact, there is no amount stipulated. Economy, then, dictates that the operation shall be a profitable one, and to secure this result the larger trees only are selected, while the smaller ones are left to grow. This system causes a constant competition to secure eligible locations for logging, and deters men from going back into the remoter districts, as they would be more apt to do than if the operators owned the land. Spruce stumpage near streams, or where two logging streams join, sells at \$1 and \$1.50 per thousand, while that which is farther away from the water will bring but \$2.50, more or less.

The mill men of Maine have got into the habit of competing with each other so sharply in the purchase of their log stock that they have narrowed the margins of their business down to a mere thread of selvaço, and this mainly depends on the ups and downs of freight rates. This limited margin is said to be a folly on the part of the manufacturers; for if they would combine together for a regulation of prices they could secure them as well as not. Probably the mill men themselves would tell a different story. It is said that often, late in the season, when freight rates become so high as to sweep away all their margins, the manufacturers let their cargoes go to sea without insurance, alleging as an excuse that the margins were all gone anyway, and if the lumber goes to the bottom, or up in smoke, they will have saved their insurance money in either event, a not very consolatory reflection, in fact, after the cost of produc-

tion has been annihilated, which might have been saved by insurance.

The hemlock of Maine is one of the principal sources of timber wealth in that state. There is a belt of this kind of timber, forty miles in width, and running entirely across the state, from New Brunswick to New Hampshire. The principal profit from hemlock is derived from the bark, which is worth at the tanneries \$6.50 a cord. The heaviest of these latter are situated along the European & North American railway, which, in the eastern part of the state, traverses the hemlock belt. They are located with especial reference to the bark supply, and will exist as long, and no longer, as that supply lasts. Since the building of the European & North American Railway, and the rising of the tanning industry along the line, there has been a great scramble for hemlock lands, the leather companies securing all that was possible. At first it was thought that hemlock was only valuable for its bark, but the constantly increasing consumption of lumber has given value to hemlock timber, also, though it is not enormous. For several years after the bark industry arose, the stumpage of hemlock sold for \$1.25, the bark being worth \$1, while twenty-five cents was skimmed out of the log. Lately that figure has been considerably raised, and the prospect is that the value of hemlock will continue to increase.

Of late years a special feature of the lumber industry has sprung up in Maine, which consists of sawing second growth timber into box boards. This manufacture is mostly carried on in the winter season, by small mills, when the large ones are shut down. The demand for box boards is very brisk from the manufacturing towns in Massachusetts, Rhode Island and Connecticut, and the narrow stuff which is sawed out of small, second growth timber, is sufficient for the purpose, and at the same time can be afforded at a reasonable figure. This special demand has stimulated a special effort to supply it, and the sawing of box boards has become quite distinct from the general lumber manufacture. The logs are sawed up without being squared or slabbed, and the lumber brings in Boston from \$14 to \$16 per thousand.—*North-western Lumberman.*

A LUMBERMAN'S LIFE.

The Philadelphia Times says:—The post of danger in the duties of a lumberman is on the jams, and there the most skilful men are sent. Pitfalls will open in the midst of a solid mass of timber, and then close in a moment, after having dragged a man down beyond all help; a log will move a few inches slowly and unnoticed, and then with a movement like an arrow strike a man, crushing the life out of him in an instant. On every side dangers are lurking, and he is fortunate that passes a spring without injury. There is something attractive in the looks of a log jam, and if the fascination that danger has were taken from it, still he would rather work there than on the shore. The long, narrow sea of white timber, cracking and writhing with the current, the water roaring and swirling as it escapes from its prison under the logs, and the logs themselves moulded into fantastic shapes by the terrible pressure behind them, all have an attraction for men who are impressed by strength or pect. esqueness.

Floods are made by large floating dams, and will raise the water several feet, lifting the jam up into the air as if it were a toy boat. If a specially large flood is needed, two and sometimes three are used at a time, the flood gates of the lower dam being opened just as the water from the dam above reaches it. In this way an immense "splash" is obtained that only the most refractory jams can successfully combat.

There are few grander sights to be seen anywhere than the moving of a large log jam. The grand strength with which they move, tearing out the largest trees and forcing everything before them, and the fierce motion of the logs, like the crazy shuttles of some giant machine, and the perfection of force compel enthusiasm from the most phlegmatic spectator. The wild hurrahs of the men or the logs add to the excitement, and the observer is quite sure to find himself running along by the side of the moving mass cheering as if he had won a battle. The men who are at work scarcely realize the

danger, they are so carried away by the excitement, and they may be seen jumping from one log to another and cheering as though perfectly safe on solid ground, instead of a dangerous sea of moving logs that are continually rising and falling and dodging this way and that, driven by the flood of water furnished by the floating dams. The skill shown by experienced floaters in riding logs is wonderful, and it seems impossible for human dexterity to reach such perfection. A jam will sometimes form where precipitous rocks make it impossible for the men to escape on either side, and they must ride the logs for several rods. In such places the water is always swift, sometimes forming rapids, and watching the logs tumbling, jumping and rolling along with a deafening roar, one wonders how men can live among them for an instant. Behind the jam breakers come the sackers with their teams, drawing the logs that jams have forced far out on the banks and rolling in those on the shore. "Bringing up the rear," is the technical term given this work by the lumbermen and it is no more desirable than occupying the same position in the army. It is terribly cold work too, wading in the snow water; ice freezing on the levers and on the clothing wherever exposed to the air, and makes the spectators shiver to watch them. But the hardy lumbermen do not mind it. They expect it, and their strength is equal to the demand.

At mealtime they all come with prodigious appetites for their rations, that are as hot as can be eaten. Hot biscuits, potatoes, eggs, meat, tea, coffee and everything else, solid and liquid, are smoking like the steam from a locomotive, while generous draughts from the cup that inebriates add their fuel to the general fire. No cold victuals are current in log-floating time, all the chill required is found in the ice water, and something has to be taken to counteract its influences.

The nights are spent in camps, where the roaring fires burn all night, partially to dry the wet clothes that must be put on in the morning. Coming into the room where the clothes are hung, a great cloud of steam is seen that rises to the ceiling, where it condenses, and either falls down in drops or evaporates on the warm boards, and the clothes are all smoking as if engaged in a contest. When the river is reached the life changes. There are few jams to break, less wading, and more riding in boats, and all the work is easier and less dangerous. If the logs stop on a rock that is out in the middle of a river, a boatman carries some men there who may roll them off and get into the boat again without danger and without getting wet. There are logs along the shore to be rolled in, but the water is not as swift as in the runs, and in the deep water a man can stand with comparative safety. Everything is easier, and the day the river is reached is almost a holiday among the lumbermen.

Talk About Timber.

The Kingston *Whig* says a gentleman, whose knowledge of the timber trade is well known, stated that the timber trade this year had been better than it had been for some years. He did not think that unchartered vessels lost anything, as they secured fully as high rates as those that had been engaged last winter. The freights paid fairly well, but nothing more than vessels ought to earn; in fact if the profits were less no person could afford to build vessels or keep them in repair. This winter, he thought, it would be difficult to obtain charters, as the owners of timber were likely to hold off until the spring. This was owing to the fact that last summer rates fell to lower figures than those for which vessels had been chartered. He thought this holding out would be a wrong policy, as when there was a demand for vessels the captains would be more independent. There will really be a larger amount of timber for moving next year than this. The method of chartering will be the very opposite to that which was adopted last winter. If there be good rates for grain, vessels will prefer to carry it. Grain freights this year were, however, far below the average, and not nearly so good as the year before. A 6c. freight from Toledo and a return cargo of iron ore to Ashtabula or Cleveland would be better than a \$70 freight for timber from the same port.

Chips.

THE number of rafts that have passed through the draw of the bridge over the Mississippi, at Davenport, Iowa, the present season is 847.

A POPLAR tree in Etowah county, Alabama, measured twenty five feet in circumference. One in Barren county, Ky., measured thirty three feet.

MAJOR A. B. WATSON, of Grand Rapids, has recently bought pine lands in Louisiana which is estimated to cut 350,000,000 feet. He has unloaded all his pine lands in Michigan, the Eagle says.

THERE are 150,000,000 feet of logs in a solid jam above Croton piers, Muskegon River, Nowaygo county, Mich. The drive is hung up for the season. It is thought that the logs below the Nowaygo will last the mills at Muskegon till they are shut down.

THE Privy Council has just given a decision sustaining the "Act respecting uniform conditions in policies of fire insurance," passed by the Ontario Legislature as constitutional, and declaring that it does not interfere with the matter of "trade and commerce," as allotted to the Dominion Legislature.

THE black walnut timber of Arkansas will prove a mine of wealth. In fact there is not a more profitable crop that can be raised on southern soil than black walnut, and it is not wide of the mark to say that the growing of this valuable timber will be one of the greatest industries on the southwestern prairies at no distant day.

THE cold weather has compelled the Chaudiere mills to close down for the season. The cut this year, though not as large as anticipated, was an extensive one. The demand throughout the season for sawn lumber has been good, and prices have not been as high since 1872. Comparatively speaking very little stock will be wintered here.

IT is said that operations will shortly be commenced with a view to rendering the Lievere River navigable between Puckingham and High Falls, to the great advantage of the lumbermen and phosphate miners in that district. This is a much better way of spending the surplus than in making paltry reductions which nobody would feel.

A LARGE pine tree on the site of old Fort Herkimer, New York, which had escaped the axe of the woodman because it had given shelter to General Washington and party, while dining beneath its boughs, when on his way to visit Fort Stanwix, was blow down in a gale a short time since. It was over four feet in diameter at the butt and over one hundred and fifty feet in height.

IN a report on the forests of British Columbia, Prof. Dawson, of the Geological Survey of Canada, dwells upon the importance of the timber trade of the Dominion. The Douglas fir, or Oregon pine, is the most valuable tree he refers to. It is often more than eight feet in diameter, and from 200 to 300 feet high, forming dense forests. The Western hemlock and red cedar are next in importance, and grow to a great size.

THE Nashville American learns from a responsible lumberman that there is now on hand in that city 30,000,000 feet of sawed lumber, which could be delivered in a day, if that were necessary. Besides this amount, Nashville lumber dealers own 10,000,000 feet of lumber on the river and along the various railroads leading into the city, making a grand total of 40,000,000 feet of lumber now in the market. A large number of agents from the northwest are now in Tennessee seeking timbered lands.

THE Lumberman's Gazette says that the magnitude of the cedar business in Alpena county may be somewhat imagined by the fact that during the present season Bolton & McRae, who are the largest dealers in that kind of timber, have shipped 350,000 railroad ties, and 250,000 fence post, and besides the above, there has been shipped large quantities of ties and posts by Bowick, Comstock & Co., Johnrowe & Donnelly, Morse & Doney, Folkerts & McFhee, and others, the sum total of which would no doubt reach 600,000 ties and 500,000 posts.

THE EXPORT LUMBER TRADE.

The Montreal Gazette says the shipments of deals from that port to the United Kingdom during the season of 1881 just closed consisted of 38 cargoes, containing 21,838,287 feet, against 19,781,885 feet in 1880, showing an increase of 2,056,402 feet. The shipments of deals from Pierreville during the past season, were five cargoes, aggregating 2,697,562 feet. The total shipments of deals and lumber from Montreal to South America and the United Kingdom for the past season amount to 34,704,228 feet, against 28,250,919 feet for the season of 1880 which shows an increase of 6,453,309 feet. The following is a detailed statement of deal shipments from Montreal and Pierreville to the United Kingdom and the Continent for 1881, as furnished by Messrs. Anderson, McKenzie, & Co. :-

FROM MONTREAL.	
Name of Vessel.	No feet.
Thule.....	620,764
Carla.....	420,391
Haab.....	730,924
Lord Palmerston.....	514,085
Mallard.....	618,952
Alida.....	282,012
Lindola.....	314,907
St. Klida.....	870,732
Lake Simcoe.....	211,800
Statenhister Stang.....	270,950
Falde.....	381,892
Adele.....	278,505
Arnim.....	240,432
Aeger.....	378,730
Menlo.....	836,715
Lake Nepton.....	65,000
Port Royal.....	227,727
Prince Llewelyn.....	242,027
Elizabeth Mary.....	235,042
Hilda.....	603,300
Anala.....	394,671
Beaconsfield.....	695,580
Xenia.....	672,220
Texas.....	277,100
Mississippi.....	103,741
Fido.....	140,561
Dronning Louise.....	155,127
Montreal.....	427,130
Virgo.....	39,000
Glendowyn.....	420,360
Wayfarer.....	140,680
Roycroft.....	901,020
Ocean King.....	618,760
Laura Emily.....	190,020
Garden Island.....	607,860
Nebo.....	762,300
Dampler.....	638,580
.....	320,700
Total.....	21,838,287

FROM PIERREVILLE.	
Name of Vessel.	No feet.
General Birch.....	745,415
Indiana.....	470,255
Franklin.....	638,495
Cap.....	520,167
Mary A. Wilson.....	318,230
Total.....	2,697,562

The total shipments of deals and lumber from Montreal were as follows in the years

	1881.	1880.
To U. K. and Continent.....	21,838,287	19,784,885
To South America.....	12,865,941	8,560,034
Total.....	34,704,228	28,250,919

FREBLE LADIES.—Those languid, tiresome sensations, causing you to be scarcely able to be on your feet; that constant drain that is taking from your system all its elasticity; driving the bloom from your cheeks, that continual strain upon your vital forces, rendering you irritable and fretful, can easily be removed by the use of that marvelous remedy, Hop Bitters. Irregularities and obstructions of your system are relieved at once, while the special cause of periodical pain is permanently removed. Will you heed this?—*Cincinnati Saturday Night*

THE SADDEST OF SAD SIGHTS—the grey hairs of age being brought with sorrow to the grave is now, we are glad to think, becoming rarer every year as the use of Cingalese Hair Restorer becomes more general. By its use the scanty locks of age once more resume their former color, and the hair becomes thick and luxuriant as ever; with its aid we can now defy the change of years, resting assured that no Grey Hair at any rate will come to sadden us. 50 cents per bottle.

HONESTY. It is commonly said that you can not make an honest man believe that white is black and vice versa, but those who have grey hair by using the "CINGALESE HAIR RESTORER," will find that this apparent difficulty is easily overcome. 50 cents per bottle.

HAGYARD'S YELLOW OIL is at the head of the list for all purposes of a family medicine. It is used with unprecedented success, both internally and externally. It cures sore throat, burns, scalds, frost bites, relieves, and often cures asthma.

Petitions to Parliament should be written in a bold, round, open hand, for which purpose Esterbrook's blunt and broad pointed pens are the best. Address the Esterbrook Steel Pen Co., 26 John St, New York, for samples.

RESPECT.—The Grey Hairs of old age demand and should receive respect—but the Grey Hairs of young people require attention—in the way of using Cingalese Hair Restorer. 50 cents per bottle.

D. S. BRIGGS,
9 TORONTO STREET, TORONTO.
WHOLESALE DEALER IN
Clear, Pickings, Common and Hardwood
Lumber, Lath, Shingles, &c.
BILL STUFF CUT TO ORDER.

J. K. POST & CO.
LUMBER MERCHANTS
And Shipping Agents.
OSWEGO, N. Y.

J. & F. N. TENNANT
Dealers in all kinds of
Lumber, Lath & Shingles,
Office, Union Loan Building,
Toronto Street, Toronto.

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

We have for Sale a large quantity of PINE, OAK, WHITEWOOD, ASH, CHESTNUT, CHERRY, BIRCH, TERNUT BASSWOOD, &c.
S.P.S.—A SET OF THE MACHINERY FOR SALE, CHEAP—OR EXCHANGE FOR LUMBER.

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

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.

PORTLAND FOUNDRY.
JOSEPH McAFEE,
(LATE ANSON McAFEE.)
Warehouse, Main St., St. John, N.B.
AGRICULTURAL IMPLEMENTS.

MANUFACTURERS OF
Cooking, Ship, Parlor & Office Stoves
MILL CASTINGS
Ship Windlasses Capstans, and
Ship Castings of all kinds,
(MADE TO ORDER.)

Power Capstans. Patent Ship Pumps
With Copper Chambers.
Lead Souders & Water Closets & all
goods in my line or Ships' use.
Work done to Order with Quick Despatch.

IRWIN & BOYD

Commission
Lumber Dealers,
FORWARDERS,
Shipping & General Agents

PORT HOPE.

KERR BROS.

PRACTICAL
Founders, Machinists,
And Millwrights.

Manufacturers of Marine and Horizontal and Portable
Engines, Boilers
Grain Elevators & Steam Hoists,
Saw and Flour Mill Machinery.

With Latest Improvements A SPECIALTY
The ABEL EDWARDS CENTENNIAL
TURBINE WATER WHEEL.

RODEBAUGH'S SAW FRAME, MILL
DOGS and SAW GUIDES.

WATER WORKS, THE LATEST AND
MOST IMPROVED, MADE TO ORDER.

LIGHT and HEAVY BRASS and IRON
CASTINGS.
Plans and Specifications on application.

The Walkerville Foundry
AND
MACHINE WORKS.

Walkerville, Ont., June 1881.

Market Reports.

MONTREAL.

From Our Own Correspondent.

Dec. 8th.—As usual at this season of the year the lumber trade has been very quiet, and confined to a small local demand. After the New Year, Americans generally come over to try and pick up some car lots, after which we hope to have a little more to say. Stocks of clear lumber in the city are small, but of the common kinds there is abundance to meet all the requirements. People in the trade are keeping down their stocks as much as possible till after stock taking. They prefer doing this and taking the chance of getting car lots as they are required. The extra winter freights by rail, which amount to about forty per cent. on the North Shore Railway, have prevented some pretty large contracts from being made. Prices generally are firm, but as yet we cannot make any change on our late list, which we again repeat:—

Table listing lumber prices in Montreal, including Pine, Spruce, Hemlock, and various grades of shingles and lath.

Continued.—The market is firm and likely to remain so, as stocks, both of coal and wood, are less this year than usual, and dealers seem confident of higher prices soon, unless the North Shore Railway brings in a very extra supply. All wood has been removed from the wharves, and supplies are now drawn from the railway depot. The weather has been so mild of late that the demand has been very quiet, but tonight the thermometer is nearly at zero, and there is every appearance of a cold spell, so that more activity is looked for from this out. Our quotations are now from the railway depot, except cartage:—

Table listing lumber prices in Montreal, including Long Maple, Long Birch, Long Beech, Long Tamarack, and Short lumber.

TORONTO.

From Our Own Correspondent.

Dec. 8th.—The last cargo of lumber for American markets, for the present season, has left this place, and lumber matters have assumed a quiet aspect. A considerable quantity is still coming forward for the local market, and shippers can now obtain all the cars they require; but the trouble now is that there is not the lumber on hand at the mills to keep up the present supply for any considerable length of time, and the fine open weather of the past few weeks has enabled building operations to be prosecuted with as much vigor as at any time during the season. The clang of the bricklayer's trowel is still heard on every hand, and there is but little diminution in the number of buildings being erected observable. In the early part of December of last year teams were drawing lumber over our Bay upon the ice, and all building operations were at a complete standstill, whereas all the yards now seem to have all the trade they can do, and more yards are rising into existence. A new firm has just opened up on the western confines of the city, immediately adjoining the municipality of Brackton. Their shingle reads, "Baumhart & Marshall, Builders and Lumber Dealers," and their reputation as business men stands well.

Then the well known firm of John Oliver & Co. has leased the large yard formerly kept by J. R. Sillerman. Their intention is to stock this yard with pine, and also use it as a warehousing premises, so that any who wish to avail themselves of the privilege of doing so, can have their lumber piled off the cars and obtain a warehouse receipt for the same. These premises are especially adapted for this purpose, as cars from nearly all the railways can be run into the yard and unloaded promptly. This will be a boon to many persons who bring lumber to this mar-

ket for sale, and in many cases incur demurrage for detention of the cars before they have been able to dispose of their lumber.

The supply of dimension stuff for this market is still extremely meagre, what little there is being fresh from the saw, and so few mills now being in operation, bills of any considerable quantity cannot be furnished at all promptly. The demand for shingles at present is quite limited, as a large number of the buildings now being erected have flat roofs, covered with felt and gravel, and the better class of houses are slated. Lath is scarce and will likely continue so for some time to come. The only kind of lumber that is at all like a drug on the market is the coarse grades of boards, but should the winter continue to be a mild one, there will not be any overstock of this or any other kind of lumber.

At this period of the year 1880 mill men had a large portion of their logs banked, and should they get favorable weather for logging purposes immediately, the season must necessarily be a short one; so that the outlook for good prices for any lumber that may be placed on the market next year is a good one, and I think that when the retailer comes to foot up his profit and loss sheet for the present season, he will find it on the whole satisfactory, as the number of bad debts made in prosperous seasons like the present is not near so large as in years of depression.

QUOTATIONS.

Table of lumber quotations in Montreal, listing items like Mill cull boards, Shipping cull boards, Scantling and joist, and various grades of flooring.

OTTAWA.

From Our Own Correspondent.

Lumber yards in this vicinity, and especially at the Chaudiere, are daily being depleted on a small but noticeable scale, for, notwithstanding that navigation is closed, large quantities of lumber, for the fulfillment of contracts entered into early in the season, are being forwarded by rail to the States, the objective point principally being Boston. Shipping facilities are steadily increasing, consequently proving a great boon to the lumberman, affording them a better means of

EXPORTING THEIR PRODUCTS.

A few days ago the St. Lawrence & Ottawa Railway made connection with the Interprovincial Railway bridge at the Chaudiere. This will prove of great value to the general trade, and especially for the shipment of lumber. The proposed through route from Montreal to Chicago, touching at this point, is also another desirable move. The connections will be made shortly, negotiations for which are at present proceeding. The exact cut in this vicinity can as yet be but partially ascertained, but sufficient figures can be gathered to give

AN APPROXIMATE IDEA.

Stock taking is now progressing in many yards, and until the work is completed the total result cannot be known. So far as learned the total cut will be about 225,000,000 feet, considerably less than the cut for the previous season. The difference is accounted for by the scarcity of logs. If circumstances had proved any way more favorable, there is no doubt but that operations would be carried on to

THEIR FULLEST EXTENT.

as mostly all that can be cut finds ready sale, orders being numerous and rates good. The exports of lumber from this port to the United States from January 1st to November 30th

amounted to \$2,069,159, being \$87,602 more than during the same period last year. The quantity shipped was considerably less than last year, but the increase in value is due to the advanced rates obtained. Demand for shanty hands still keeps good, while the supply is nothing like what is desired.

WAGONS.

remain about the same, and an increase cannot well be expected, as all the concerns are now pretty well supplied. Operations on the limits this winter are being carried on as extensively as in past seasons, if not more so; and it is expected that all next season will be, in the history of lumbering operations in the Ottawa Valley, a repetition of the great boom of 1869-70.

THE ELECTRIC LIGHT.

is gradually coming into more extensive use by mill owners hereabouts. Eddy's large system of lights work admirably; as also does that of Capt. Young. Its adoption by the remainder of the lumbermen is only a question of time. Messrs. Parley & Pattee intend to use it both in their large mill and on their shipping docks next season. The contract, it is said, has already been entered into.

MISCELLANEOUS.

The Quebec Lumber Co. has given notice of an application to Parliament for an Act of incorporation.

Messrs. McLaughlin Bros.' new steam mill at Arnprior has been tested and works to a charm. 200,000 feet were cut from 6 o'clock a. m. to 5 o'clock p. m. on the day of trial.

LONDON, ONT.

From Our Own Correspondent.

Dec. 10. If it were not that Christmas is made evident by the display of prize beef and highly decorated Christmas birds, it would be almost possible to imagine ourselves in the midst of spring in this city. The season has been remarkably open, except a day now and again when we had a taste of winter, but the snow falls have been few and light.

The opinion expressed in my last letter that lumber would be higher in this market ere this latter appeared has not been verified. There seems to have been a back action at work, or the open season has effected the demand, for though it has not fallen off to any marked extent, prices are inclined downwards, and I believe some merchants have been selling at lower figures for cash, but looked accounts are charged full rates. The general tendency, however, at this date of writing, is easier, and there may be a lower list to record in my next, unless some thing not now in view turns up to stimulate the market.

The lumber contract for the new block of wholesale stores has not yet been placed, to my knowledge. The foot lights of the Holman Opera House have been finally extinguished, and the work of demolition will go on at once.

There continue to be complaints of want of proper car supply on the G.W.R. This matter should be remedied.

QUOTATIONS.

Table of lumber quotations in London, Ontario, listing items like Mill cull boards, Shipping cull boards, Common boards, and various grades of flooring.

ST. JOHN, N. B.

From Our Own Correspondent.

Dec. 7th. Since our last report the river has frozen over, closing the internal navigation for the season, which narrows down our lumber operations in the way of shipments to comparatively small dimensions.

DEALS.

Our only source of deal supply is now from the few city mills which have logs to cut, and as these are stocked only to a very limited extent, the termination of the season's manufacture of deals is not distant. Our latest shipper, Mr

A. Gibson, is reported to have recently bought up all the deals for sale in this market (some 7,000,000 sup. ft.) at \$11 per M., so that the entire stock here is now in the hands of shippers.

FREIGHTS.

The freight market is very quiet. Very little tonnage has been offering of late, and rates have improved. The following charters are among the latest transactions reported:—*Rialto*, 1,530 tons, at 58s. 9d., and *Magdal* 278 tons, at 60s., both for Liverpool; *Abram Young*, 756, for Cuba, at 21c., for sugar box shooks.

SHIPMENTS.

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

Table showing shipment statistics for Europe, United States, West Indies, and South America.

SHIPPING.

The following is a list of the vessels in port, with their tonnage and destinations:—

Table listing shipping vessels in port, including Bertio Hlglow, Andrew Johnson, Annie Stafford, and others.

ALBANY.

Dec. 7th.—Quotations at the yards are as follows:—

Table of lumber quotations in Albany, listing items like Pine, Spruce, Hemlock, and various grades of shingles and lath.

OSWEGO, N. Y.

Dec. 5th.—Market for dry uppers and pickings is very fair. The demand is good for all kinds of lumber fit for sale. The assortment is very fair. The receipts are falling off, and the season may be considered about closed.

Table showing receipts for 1881 and 1880.

The following are the quotations:—

Table of lumber quotations in Oswego, listing items like Three uppers, Pickings, Fine common, and various grades of shingles and lath.

TONAWANDA.

CARGO LOTS—SAGINAW INSPECTION.

Table showing cargo lots and inspection statistics for Tonnawanda.

CHICAGO.

Dec. 7th.—The following are the CARGO QUOTATIONS.

Joint and scantling, green, ordinary length	\$12 00	12 25
Joint and scantling, green, 20 feet and over	14 00	13 25
Mill run, choice, green	19 00	23 00
Mill run, medium, green	18 00	19 25
Mill run, common	00 00	14 00
Shingles, standard	2 75	2 80
Shingles, extra A	2 80	2 90
Sawn	2 12 1/2	2 25

BUFFALO.

We quote cargo lots:—

Uppers	\$10 00	15 00
Common	17 00	20 00
Culls	11 00	12 50

THE ADVANTAGES OF MECHANICAL DRAWING.

To the Editor of the Canada Lumberman.

Sir, Much that is taught in our schools and colleges is primarily with a view to mental training or mental discipline. Such is the case with a great part of an ordinary mathematical course or a course in the ancient classics. It is generally admitted that such studies have little or no practical bearing on any of the ordinary pursuits of life. Drawing of any kind, but particularly mechanical drawing, if viewed simply as a means of mental discipline should rank high. It incites to the habit of correct observation, gives exercise and strength to the powers of reason and reflection, matures the judgment, cultivates the taste, trains the eye, and makes the hand dexterous. A turn at good muscular exercise is about all that is wanting for the cultivation of the whole man. This is a good showing on the score of general training. But besides this by far its greatest value lies in the practical advantages it offers. It is a prime necessity in nearly all of the departments of art and manufacture. The economical construction of our modern high class work requires a carefully designed prearranged plan, which is usually embodied in the form of a drawing generally made to a scale—showing the thing as a whole, with the several parts in their true position and proper relation; other drawings of portions and sectional views are also added as required. This is building up the thing on paper and has nearly all the advantages of genuine trial construction. The efficient draughtsmen then must understand the builder's art, and it follows, that to properly teach mechanical drawing is not alone to show how neat lines of geometric forms may be made on paper, but also to teach the principles of the science pertaining to some particular mechanical trade. And the workman, who learns, implants upon the basis of his already acquired manual skill a knowledge of the mechanical principles involved in the work he performs. Consequently ambitious, progressive young men, who have a very natural desire to master the theory as well as the practice of their trade, take up this study and art, for it is really both; not always with a view of becoming expert draughtsmen and following it as a life pursuit, but for the purpose of becoming better masters of their own situation. They know then not only what they are doing but why they do it. If a new drawing is placed before them to work by, they feel an acquaintanceship with that sort of thing, they not only see it but they see through it. They can begin the work at once and begin right, while to many engaged in the trades an average mechanical drawing is about as puzzling as a mass of Egyptian hieroglyphics.

Every man's work should contribute to his pleasure. Life at its best is dull enough, but it must be dreadfully dull to the man who for fully two thirds of his working hours has no greater interest in what he does than the pittance it gives him for daily support. He is under the curse of Adam to its full extent. I am aware that the employment of many is of such a nature that there is nothing in it to interest them. Their work is one perpetual treadmill—an endless routine soon learned and never to be forgotten.

This is all very well when the ability of the employee is just about equal to the situation, and he adds to it the grace of contentment. He needs no lessons in drawing. Such I think are somewhat excusable if with the monotonousness of their daily work a little diversion is interlaid. Active minds in such positions chafe and worry and soon leave them for others where

there is scope for manual skill and mental effort. Such a man then enjoys his labor. It is to him a subject of study, and of course a matter of interest. He learns drawing to assist him in its prosecution, also for the pleasure of knowing the beautiful art.

A good knowledge of drawing is equal to a large amount of experience. Though experience is most always valuable yet it is often overestimated. Experience in doing work after clumsy old fashioned methods is a positive disadvantage, and experience even in some good methods often works a man into a rut and keeps him there. Experience is valuable when used as part of our stock of information on which we draw and apply to the matter in hand as each particular case may require.

The ability to do this—to turn things to account, to make the most of a given set of circumstances, depends most largely upon study, and the kind of study should be that which pertains to our own pursuit. Then with the knowledge of drawing we are enabled to readily give tangible form to our ideas. We express them in a universal language. Mechanics of every nation can read, understand and work by them.

Such, Mr. Editor, are some of the advantages obtainable from a study and practice of this interesting subject.

Yours, &c.,
W. H. TROUT.

The Australian Trade.

Messrs. Gemmill, Tuckett & Co.'s monthly report, dated Melbourne, Sept. 27th, states that the amount of business carried through at auction has been far in excess of the average, but prices for some lines have receded.

AMERICAN LUMBER.—The shipment ex *Haze* was placed at auction, realizing for white pine shelving £13 5s; w. p. t. and g. ceiling, £11 2s. 6d.; clear pine, £18 7s. 6d. to £18 per M. super; the trade holding light stocks.



CANADIAN PACIFIC RAILWAY.

Emory's Bar to Port Moody.

NOTICE TO CONTRACTORS.

Tender for Work in British Columbia.

SEALED TENDERS will be received by the undersigned up to NOON on WEDNESDAY, the 1st day of FEBRUARY next, in a lump sum, for the construction of that portion of the road between Port Moody and the West-end of Contract G3, near Emory's Bar, a distance of about 8 1/2 miles.

Specifications, conditions of contract and forms of tender may be obtained on application at the Canadian Pacific Railway Office, in New Westminster, and at the Chief Engineer's Office at Ottawa, after 1st January next, at which time plans and profiles will be open for inspection at the latter office.

This timely notice is given with a view to giving Contractors an opportunity of visiting and examining the grounds during the fall season and before the winter sets in.

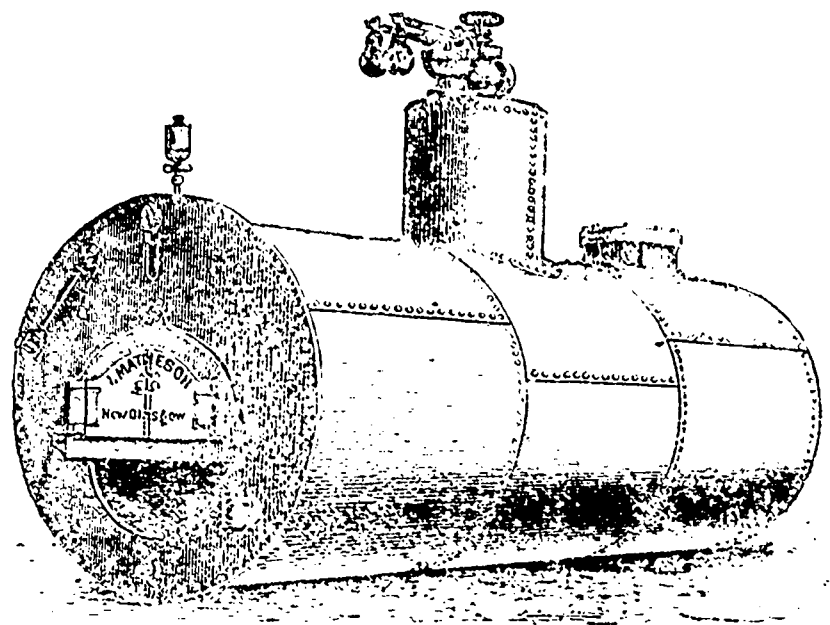
Mr. Marcus Smith, who is in charge at the office at New Westminster, is instructed to give Contractors all the information in his power.

No tender will be entertained unless on one of the printed forms, addressed to F. BRAUN, Esq., Sec. Dept. of Railways and Canals, and marked "Tender for C. P. R."

F. BRAUN, Secretary,
Dept. of Railways and Canals,
Ottawa, Oct. 24th, 1881.

LEATHER BELTING.

Chipman, Renaud & Co.
MANUFACTURERS OF
LEATHER BELTING,
FIRE ENGINE HOSE
LACE LEATHER, &c.
124 & 126 Queen St. MONTREAL



ACADIA FOUNDRY
J. MATHESON & CO. ENGINEERS & BOILER MAKERS.
NEW GLASGOW, N.S.

Drake Brothers' Box Mill,

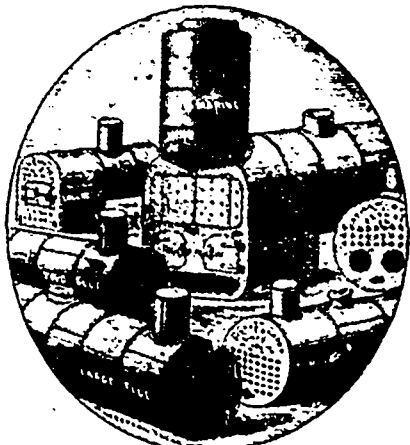
Provost Street Extension, New Glasgow, Pictou County, N. S.

SPRUCE, PINE AND HEMLOCK SHINGLES

F. H. DRAKE. N. H. DRAKE.

John McGregor & Sons,

MANUFACTURERS OF ALL KINDS OF
STATIONARY,
MARINE, and
LOCOMOTIVE BOILERS,
And SHEET IRON WORK.



Portable Boilers for Threshing Machines, Shingle Mills, etc., furnished on short notice. All Boilers tested by cold water pressure to 120 lbs. for the square inch before leaving the shop.

SECOND-HAND MACHINERY
BOUGHT, SOLD, OR TAKEN IN EXCHANGE FOR NEW WORK.
Repairs Promptly Attended to.
188 Atwater Street, Detroit, Mich.
BRANCH SHOP,
Cor. Glengarry Ave. & Stuart St. WINDSOR, ONTARIO.

'XMAS PRESENTS!
TRY
F. CRUMPTON,
"The Jeweller,"
83 King St. East, Toronto
WATCHES,
DIAMONDS,
JEWELRY,
SILVERWARE,
CLOCKS, Etc.,
Suitable for 'Xmas Presents.
PRICES WILL BE FOUND CHEAPER THAN HOUSES WHO ADVERTISE LARGE DISCOUNTS.
TRY HIM!
Goods sent by mail or express. Perfect satisfaction guaranteed.

ABRAMS & KERR

MANUFACTURERS OF

Steam Engines, Mill Gearing, Rotary Mills, Shafting,
Planers, Hangers, Pulleys, Variety Moulders.

SPECIAL MACHINERY MADE TO ORDER

Latest Improved Spool and Bobbin Machinery.
Every Variety of Heavy and Light Casting.

L24-1y

Foundry and Machine Shop on City Road,
ST. JOHN, NEW BRUNSWICK.

ROBIN & SADLER

594, 596, 598, St. Joseph St.

MONTREAL

Manufacturers
of

LEATHER BELTING

Fire-Engine

HOSE,

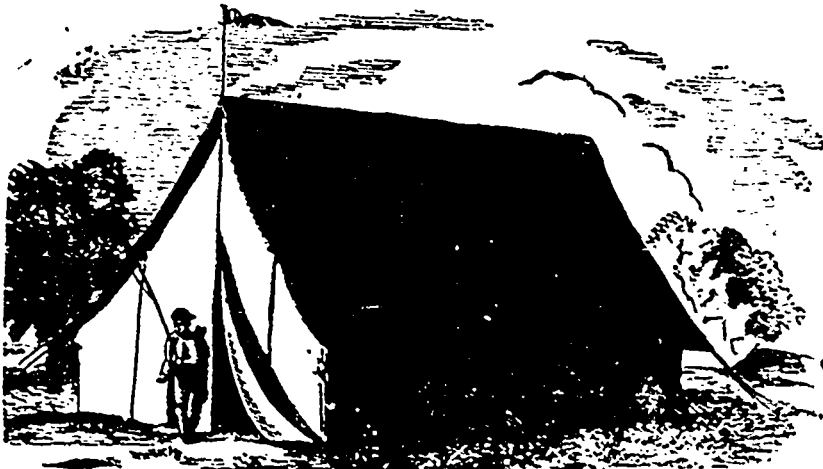
Lace Leather,

Mill Supplies, &c.

1y-118

National Manufacturing Company

202 SPARKS STREET, OTTAWA.



Manufacturers of Tents for Lumbermen, Sportsmen, Camp Meetings, Photographers, Lawn and military Encampments, with or without extra roofs, all sizes and styles, white or fancy striped, mildew proof or plain. Prices from \$5, upwards. Flags of all descriptions, (regulation sizes) made of the best of silk-finish bunting. CAMP BELTS (Bradley's Patent) the best bed ever invented; size when folded 2 x 6 in.; 3 feet long, weighing only 11 pounds, but strong enough to bear the weight of any man. Waterproof wagons and horse-covers, tarpaulin sheets, coats and leggings of every description made to order on the premises. Special rates to Lumbermen. Send for catalogue and price list to

NATIONAL MANUFACTURING CO.,

202 Sparks Street, Ottawa

D. McLACHLAN & SONS,

Manufacturers of all Descriptions of

STEAM BOILERS.

SHIPS' WATER-TANKS. Repairing Punctually Attended to.

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NORTH SLIP, ST. JOHN, NEW BRUNSWICK.

OAK HALL

Nos. 115, 117, 119, 121, King St. East, Toronto.

We are the most Extensive CLOTHIERS in Canada.

We carry a STOCK of FIFTY THOUSAND DOLLARS to choose from.

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.

NOTE THE PRICES.

We give a Good Tweed Suit for.....\$6 00

We give a Good Tweed Pants for..... 1 50

We give a Good Overalls for 0 35.

LUMBERMEN!

When you visit Toronto, come direct to OAK HALL, and fit yourselves out with a Good Suit. Remember the address:—OAK HALL, the Great One Price Clothing House, Toronto, opposite St. James's Cathedral.

1y-113

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 10 x 24 x 26.

DOUBLE OVEN STOVE

The Double Oven has a top surface containing twelve 10-inch pot holes, with two ovens, each 16 x 24 x 26. 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, 1850.

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, 1850.

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, 1850.

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.

ADAM HALL, Peterborough.

HART EMERY WHEEL COMPANY, Limited

HAMILTON, CANADA.

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MANUFACTURERS OF THE CELEBRATED

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 ROBERTSON & CO.,
TORONTO.

WE ALSO REFER TO

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

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

Northey's Steam Pump Works

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.

No. 47 King William Street.

HAMILTON, ONTARIO.

SEND FOR CIRCULAR.

L17-14

MILL SUPPLIES.

Extra Stretched and Patent Smooth Surface

RUBBER BELTING—in Stock, 2, 3, 4, 5, and 6 Plies.
 HOYT'S CELEBRATED LEATHER BELTING.
 COTTON BELTING, for Flour Mills. &c., Superior Quality.

DISSTON'S CELEBRATED MILL SAWS.

Steam Packing of all kinds, Rubber and Linon Hose, Silk Bolting Cloth, Emery
 Wheels, Lacing Leather (Pago's Genuine), Lard, Seal, Cylinder, Spindle, West Vir-
 ginia and Wool Oils. Our Stock includes Mill Supplies and Rubber Goods of all
 kinds. Quotations furnished for any part of Canada.

ESTEY, ALLWOOD & CO., SAINT JOHN, NEW BRUNSWICK.

ESTABLISHED 1820.

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GEORGE BRUSH

14 to 34 King and Queen Streets, MONTREAL,

MAKER OF

Steam Engines, Steam Boilers, Hoisting Engines, Steam Pumps,
 CIRCULAR SAW MILLS, BARK MILLS, SHINGLE MILLS,
 Ore Crushers, Mill Gearing, Shafting, Hangers and Pullies, Hand and
 Power Hoists for Warehouses, &c., &c.,

AND AGENT FOR

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

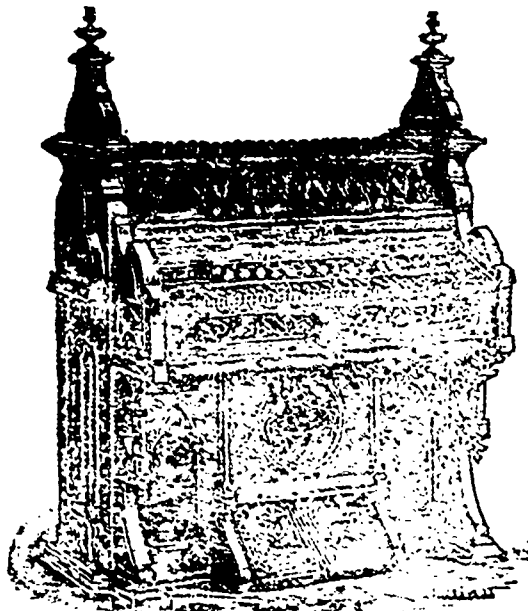
The Crowning Triumph of the Bell Organ

The Bell Organs have just received the HIGHEST AWARD and SPECIAL PRIZE (Gold Medal)
 at the International Exhibition, Sydney, Australia, this year for their Organs over all the English
 and American makers. This, along with the unlimited awards, prove that

THE BELL ORGANS LEAD THE WORLD.

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Only Medal for Parlor Organ, Provincial Exhibition, 1878
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 And Gold Medal..... at Sydney, Australia, 1880



Medal and Diploma..... Provincial Exhibition 1871
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The Bell Organ Manufactory is the Largest and Oldest in the British Empire, and the fact that
 we have sold nearly 15,000 proves that they are the best in the market. We GUARANTEE ALL
 OUR ORGANS for five years. Correspondence invited. Illustrated Catalogue mailed free.

W. BELL & CO.

41 to 47 East Market Square, GUELPH, Ont.

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PARKER & EVANS

SOLE PROPRIETORS OF THE

FA MOUS 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 omits a clear pure Steam.
 In ordering, mention the CANADA LUMBERMAN.

L214

504 St. Paul Street, MONTREAL.



ESTABLISHED 1874.

ESTABLISHED 1874.

Norman's Electro Curative Appliances

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.,

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,

WATERVILLE, N. B.

C. L. TILLEY.

Numerous of such testimonials can be seen at my office, proving that they are doing a good work and worthy
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A. NORMAN, 4, Queen Street East, Toronto.

A.B. Trusses for Rupture, best in America, and Electric Batteries always on hand at
 reasonable prices.

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LUMBERMEN

Will always find a Large Stock of

Shanty Blankets

AND

HORSE BLANKETS

At LOWEST Mill Price, at

JNO. MACDONALD & CO'S

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Send Sample Order for our LINED SHAPED

HORSE RUG, a Specialty, highly recommended for

Wear and Warmth.

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(Late CAMPBELL & FOWLER.)

MANUFACTURER OF

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

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

The Best Axes in the World!

Single, Double and Triple Steel.



Warranted Good or Exchanged.



Also Dunn Edge Tool Company's and best Canadian Axes, repacked any weights without extra charge. Lindsay Pattern of Broad and Blocking Axes LANCE TOOTH SAWS, warranted good. Timber Lines and Chalk. Stable Shovels, Forks and Brooms. 2d CUT FILES. Heavy HAMES, BUCKLES and HARNESS TRIMMINGS, Curry Combs and Horse Brushes. Sleigh Shoe Steel from 1/2 to 1 inches wide. Best proved Coll Chain from 1/2 to 1 inches. Blacksmith's Bellows, Anvils, Vises, Drills, Horse Nails and Shoes. A large Stock of Iron and Cast Steel. Winchester, Sharp's and Ballard Rifles and Cartridges.

GEORGE STETHEM, Peterborough, Ont.

Importer, Jobber and Retail Dealer in Hardware.

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HEADQUARTERS FOR INSERTED TOOTH SAWS!

THE BROOKE BIT SAW,

With interchangeable Trenton Teeth.

THE HOE BIT SAW.

FLANGE TOOTH SAWS.

Write McLachlan Bros., Amptor, as to how they like 2-66 inch Brooke bit, and 2 1/2 inch Hoe Saw—running 500 revolutions per minute on 10 to 15 inch feed. Also, E. F. Parson's, Amptor, running 60 on Brooke bit on 6 inch feed—500 revolutions per minute; cut 500,000 feet with two sets of bits, costing less than \$10.00.

ORDER BY THIS GAUGE.

EWART'S PATENT DRIVE CHAIN

FOR SAWDUST CARRIERS, LIVE ROLLS, THIMBERS and REUSE CARRIERS.

BROWN'S PATENT SPALT MACHINE

Cuts three feet shingles out of inch log. Cuts shingle out of slabs and all manner of refuse. Will save on pay for both around any large Mill.

AUTOMATIC GANG TRIMMERS, SIX SAW EDGERS, and the most improved Saw Mill Machinery. PORTABLE SAW MILLS OUR SPECIALTY.

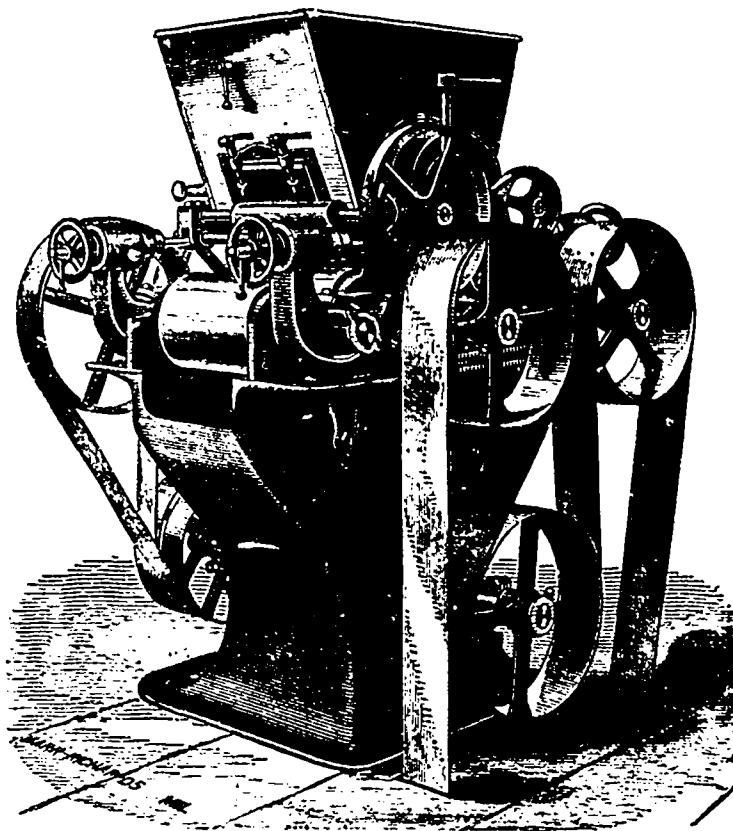
Address, **WATEROUS ENGINE WORKS CO., Brantford, Canada.**

Flour Making by the New Process

GRAY'S PATENT NOISELESS ROLLER MILL

*A Model of Perfection!
Every Mill a Success!*

CORRUGATIONS of all Descriptions.
Smooth Iron or Porcelain ROLLS.



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

The Machine is Perfect in all its adjustments, and RUNS WITHOUT NOISE.

It is doing Better Work than any other Machine in use. Automatic Lubrication of Principal Bearings. Driven entirely by BELTS. Differential Speed always insured.

WEYMAN'S NEW IMPROVED PATENT

Porcelain Rolls

The BEST ROLL FOR MIDDINGS in the world. Over 6000 in use in this country and Europe. Send for particulars.

MILLER BROS. & MITCHELL,

Nos. 110, 112, 114 and 116 KING STREET

MONTREAL.

SOLE LICENSEES FOR DOMINION.

Manufacturers of Improved Hoisting Machinery, MINING and CONTRACTORS' PLANT. Importers of BEST STEEL WIRE ROPE. Mention this Paper.

121-17

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 feckle, 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 its use are beveled.

The principal sizes are:

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

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 the use of 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.

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.

W.M. 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 plinon 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,

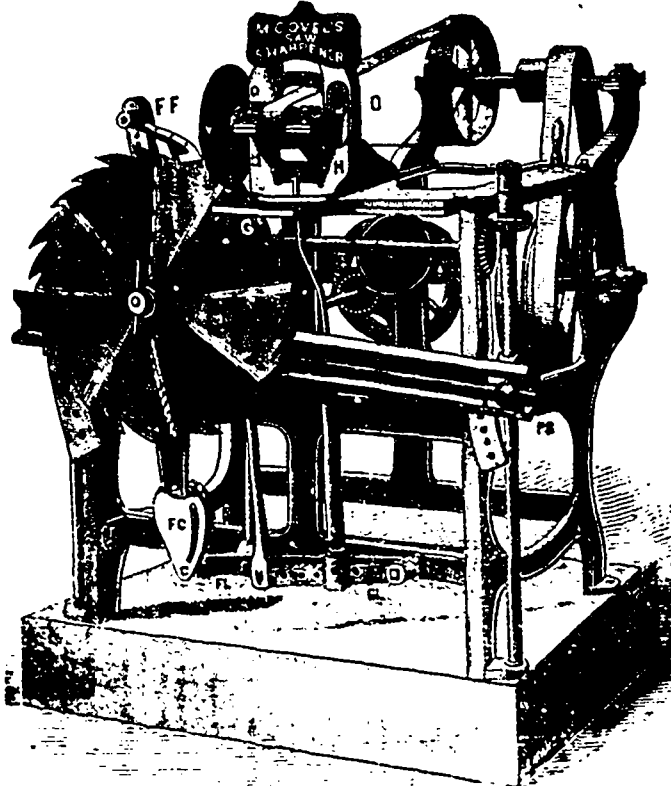
WILLIAM TAIT,
Lumberman, Gravenhurst.

Toronto, August 11th, 1880.

W.M. 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 Churn 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, Woollen, and Cotton Factories, or large Factories of any kind, 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.