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# THE CANADIAN LUMBERMAN



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., JULY 15, 1881. NO. 18.

THERE is now brought into the city of New Orleans annually about 15,000,000 feet of timber, which is sawed into lumber by mills in the city, and there is received besides about 60,000,000 feet of lumber, 6,000,000 shingles, 40,000,000 cords of wood and 25,000,000 staves, a large portion of which is exported to foreign ports, and there seems to be no good reason why the wood trade of New Orleans should not be largely increased. Louisiana abounds in magnificent virgin forests with ample water facilities for transporting it to market. While its total area is 26,105,000 acres, but 3,700,000 acres are under cultivation, and 5,821,000 acres consist of prairie and sea marsh lands leaving 17,584,000 of almost untouched forest lands, abounding in red, white and black oak, hickory, ash, beech, digwood, cypress, cottonwood, elm, pine, etc., etc. Evidently New Orleans is destined to become an important lumber centre.

The Northwestern Lumberman of the 25th ult., says: There are now coming to this city (Chicago) about 60,000 cubic feet of walnut logs belonging to Ontario parties, and destined for the European market. The owners have had a force of men securing them, principally in Missouri. There will be three cargoes, and they will be forwarded from here to Quebec, thence to European ports. The chances for eastern buyers to obtain walnut in western Missouri are growing smaller every day. Manufacturers in that section have come to understand that the great stretch of country west of them will be calling for furniture continuously, and they have decided that it is better to manufacture it here than to ship the walnut east and in turn ship the furniture back. Of late a great many factories have been built in that state, and they make a lively effort to secure the walnut that grows in the surrounding country. At present they are paying from \$40 to \$50, log run.

The business of 1881 thus far, presents to the mind of the observer two important features. The first is the fact that trade this season has practically escaped its usual attack of weakness. As a rule holders and sellers have been compelled to submit to a decline on the opening of navigation, and even to witness a regular break up in prices, but this year, except in Chicago, there has been no period of weakness, and even when it amounted to comparatively nothing. Then, in the second place, it will have been observed that throughout the season it has been difficult to fill orders, and at no time during 1881 has there been lumber enough in the hands of dealers to meet the demands made upon them promptly. Broken assortments have been the rule, which is the best proof that instead of stocks accumulating they have moved off as rapidly as they were ready for consumption. So long as this state of affairs continues there need be no apprehension of any general decline.

## SAW GUMMING.

There are several contrivances for the troublesome but necessary job of gumming saws. Files, burr gummers, punches, and grindstones have in turn been used, but nothing has proved itself so rapid and efficient as the Emery or Corundum Wheel. To perfect their operation, inventors have not been slow to place before lumbermen, machines to run these saw gumming emery wheels. Mr. W. Hamilton, Peterborough, is now supplying a machine for this purpose, and judging from the demand he has for them, the Covell Saw Sharpener must be a very efficient tool. Our readers will notice from our advertising columns that the celebrated Hart Emery Wheel, well known to American lumbermen as the "Detroit Wheel," is now being made in Canada. The manufacturers, whose headquarters are in Hamilton, claim to have given special attention to the wants of sawyers, and as a result are offering a Corundum or Emery Wheel thoroughly adapted in every respect to the work of saw gumming and saw sharpening. The prominent and well known firms to whom they refer, indicate that their efforts to produce a good article have been successful, and that they are well deserving of a share of the trade. We understand that a guarantee of absolute efficiency accompanies each wheel.

## THE STREAMS BILL.

We clip the following letter from the Toronto Globe of the 6th of July:—

SIR, — In both your own and the columns of your leading contemporary on the other side, there have been recently many letters and articles on the disallowed Streams Bill, No. 102.

As I am here on the spot in the district which would be, perhaps, most affected by the Bill becoming law, I think I am justified in writing a few lines thereon. I will avoid alluding to the partisan arguments which have been advanced on either side, so that my remarks may be as short as possible.

The Bill as a Bill is not to be admired, seeing that privileges and rights conferred on anyone thereby are granted only for and terminated by the spring, summer, and autumn freshets. Therefore, after any freshet is over these persons with their dams, piers, aprons, etc., would have to clear out or be treated as trespassers.

If the Ontario Legislature cannot procure to be drawn a simple Bill to carry the meaning they intend nearer than this, the sooner some member moves the Minister of Education into the Speaker's chair the better.

But joking apart the Bill is all right, excepting that it is all wrong, that is, the principle is right but the details are enormities.

It is just that streams should be considered highways, and that means should be provided to make them efficient, but it is wrong to place

the power to govern, alter, and superintend in the hands of each and any private individual who desires their use.

By this Bill anyone who wishes to take a log or boat or raft—the latter definition might be satisfied by two sticks and a sheep hurdle—down any stream, may construct "aprons, dams, slides, gate locks, booms, and any other work therein or thereon necessary to facilitate the floating and transmitting of such logs, &c., &c.," and they have also the right to use all means usual amongst lumbermen, the damage being only restricted when it can be shown to be necessary to facilitate the passage of logs, rafts, crafts, etc. In the name of common sense is not this legislation gone mad? Any one who wishes to float sticks or walnut shells (timber and craft) down any stream, or when a stream is created during the freshets, may build dams and aprons or use any other diabolic means usual to lumbermen to facilitate the transit, and if they drown out 2,000,000 acres no one is entitled to claim a cent for damages. A single dam might drown out miles of country, and destroy on it the timber the property of the Crown; the destroyer falls back for protection on this Bill, which has for its object the public interest. If honest, the Ontario Legislature ought to be thankful that their production has been consigned to the limbo of the waste paper basket.

The fact yet remains,

1. That all permanent streams should be available as public highways for floatage of timber, raft, sawlogs, square timber, booms, ties, telegraph poles, and all like matters.

2. That any improvements or works constructed by any private owner should be available at fair tolls for public benefit.

But any damage caused by alterations should be made recoverable from the State, and in assessing damages the property must be considered as a whole, and in agricultural lands the raising of the water table—that is, the level at which the water stands beneath the soil—must be considered.

Lastly, the regulation of tolls should rather be left to arbitration than to the decision of the Lieutenant-Governor in Council.

I have no more to say on this, I trust, nor hind Bill, with the exception that I am surprised that the gentleman to whom the inhabitants of this district confided their interests at the last election should have permitted such a measure to pass the House without protest.

I am, Sir, your obedient servant,  
E. G. MUNTZ.

ALPORT, Muskoka; July 4, 1881.

THE MOST MISERABLE MAN IN THE WORLD is the dyspeptic, and dyspepsia is one of the most troublesome difficulties to remove, but BURDOCK BLOOD PURIFIER always conquers it. It stimulates the secretions, regulates the bowels, acts upon the Liver, aids digestion, and tones up the entire system. Trial bottles 10 cents, large bottles \$1.00.

## THE TIMBER OF BRITISH COLUMBIA.

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

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

The other trees are a species of yew, another of alder, two species of fir (*Abies Menziesii* and *grandis*); two species of pine (*Pinus contorta* and *monticola*); two species of maple (*Acer macrophyllum* and *circinatum*); hemlock spruce (*Abies Merriamiana*) is a common tree on the mainland; while a species of oak (*Quercus Gayrana*) is abundant on the island, but has not been detected on the continent. An evergreen tree (*Arbutus Menziesii*) is quite common along the coast of the island, and, both summer and winter, its foliage contrasts finely with that of the sombre-hued Douglas fir.

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

The timber of the third region is not so good, and consists principally of poplar and black pine (*Pinus contorta*), with occasional groves of Douglas fir on the higher hills. Black and white spruce, with a little balsam fir, make up the remainder.

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

Berrard Inlet is situated on the Gulf of Georgia, a few miles from New Westminster. It is nine miles long—deep and safe. It is the port from which the lumber trade is chiefly carried on. It is very easy of access to vessels of any size or class, and convenient depth of water for anchorage may be found in almost every part of it.

## MCLAREN vs. CALDWELL.

JUDGMENT BY THE COURT OF APPEAL—THE DECISION OF V. C. PRONDFOOT OVER-RULED.

C. J. SPRAGG delivered judgment in this case on Friday in the following terms:—

The plaintiff describes himself in his bill as a lumber merchant, lumber dealer, saw miller, and lumberman, and states that the defendant carries on the same branches of business. The bill enumerates some twelve parcels of land, of which it is stated that the plaintiff is the owner, and it states also that he is owner of large tracts of timber. The bill goes on to allege that the streams flowing through these parcels of land were not navigable streams, "nor floatable for logs and timber" while in the Crown, nor until after the improvements set forth in the bill were made on the said streams by the plaintiff, and that in their natural and unimproved state they would not, even during freshets, permit of saw logs or timber being floated down the same, but were useless for the purpose, and in the 10th paragraph there states his rights:—"The plaintiff is entitled, both as riparian proprietor and owner, in fee simple, of the bed of the said streams where they pass and flow through the said lots, respectively, to the absolute, exclusive, and uninterrupted uses of the said streams for all purposes not provided by law, and amongst other purposes to the absolute and exclusive right to the user of the same for the purpose of floating or driving saw logs and timber down the same." He then goes on to say that in various parts of the said streams, which run and flow through lands therein described, the plaintiff and those through whom he claims have expended a large amount of money in making certain specific and very valuable improvements, which he sets out in a number of the following paragraphs of the bill.

The complaint is in substance, that the defendants having got out several thousand saw logs, throats, and intend to avail themselves of the improvements set out in the bill, and that in floating and running the timber and logs down the stream they are interfering with and obstructing the plaintiff in running and floating down his lumber and saw logs, and he takes this ground, that the defendants in so doing are wrongfully and forcibly, and without right, or colour of right, making use of the improvements made by the plaintiff, and those under whom he claims, and of which plaintiff is entitled to the exclusive and uninterrupted user.

Evidence was given at great length before V. C. Prondfoot. That learned judge considered that he ought to follow the case of *Boale v. Dickson*, and that he understood that case to determine that if any improvements are necessary to render the streams floatable, the statute does not apply; that it does not alter the character of the private streams, and that the owner of the land over which the stream flows has the right to prevent intrusion upon it. Upon the evidence he came to the conclusion that without the artificial means of which evidence was given neither of the streams upon which improvements had been made by the plaintiff could be considered floatable, even in freshets or high water.

That was the issue upon which the evidence in the cause was given, and that the proper issue of the construction placed upon the statute in *Boale v. Dickson* was the proper construction.

Upon the appeal to this court it is contended that the construction placed upon the statute in *Boale v. Dickson* was not correct. It becomes our duty, therefore, to consider and determine that question.

It is obvious from a perusal of the Acts (which are considered in c. 48 of the C.S.U.C.) that it was the policy of the Legislature to encourage the lumber trade of the province; and to preserve the fish in the streams. The Act of 1828-9, Geo. IV., c. 24, recites: "Whereas, it is expedient and found necessary to afford facility to the inhabitants of this province engaged in the lumber trade in carrying their rafts to market, as well as for the ascent of fish in various streams now obstructed by mill dams." Then follow two sub-sections, which are embodied in section 3 of the Consolidated Act.

The same policy is evidenced by 12 Vic., c. 87, the first section of which supplies what may be taken to have been an omission of the Act of

1828, viz., that aprons or slides to mill-dams should be so constructed as to afford sufficient depth of water for the passage of saw logs, lumber and timber—a provision embodied in sec. 4 of the Consolidated Act.

Then in sec. 5 of the same Act we find enacted what is embodied in secs. 15 and 16 of the Consolidated Act. The first clause of sec. 5 is in the same terms as sec. 15, beginning thus:—"And be it enacted that it shall be lawful for all persons to float saw logs" (and so to the end of sec. 15) "and other timber rafts and craft down all streams in Upper Canada during the spring, summer, and autumn freshets; and no person shall, by felling trees or placing any other obstruction in or across any such stream, prevent the passage thereof."

In *Boale v. Dickson* this opinion is expressed, "that the right so given extends only to such streams as in their natural state will, without improvements, during freshets permit saw logs, timber, etc., to be floated down them, to streams of a different class to those mentioned in the third section "Down which lumber is usually brought."

No such qualification of the right given by section 15 is to be found in the Act nor in any other previous Acts thereby consolidated. There is nothing in the context of any of these Acts showing or tending to show that such qualification was intended; and we know from what we find in the evidence taken in this cause, that confining the right given by section 15 to such streams as are described in the passage I have quoted from *Boale v. Dickson* would go far to defeat the avowed policy of the Legislature. Evidence was offered that in some of the streams in the province, at the date of passing of these Acts, saw logs, timbers, &c., could be floated down in their natural state without improvements, even during freshets. The evidence was stopped by the learned Vice-Chancellor upon the objection of the plaintiff's counsel after some evidence in that direction had been given. But from the evidence that was given in the cause it is apparent that if section 15 is to be read with the qualification given to it by *Boale v. Dickson*, a very large number of the streams in the province would be excluded from its operation.

I agree with what is said in *Boale v. Dickson* "that assuming the plaintiffs to be the owners of the bed of the river, and considering this Act to be a diminution of private rights, no greater right can arise to the defendant under it than a right to float timber, &c., down during freshets; it confers no right to in any way either improve or deepen the natural channel." I do not understand by this that a person to whom such right to float timber down is given, &c., may not remove fallen timber and such like obstacles to navigation as are referred to in *Crell v. The G. T. R. Co.* But taking what is said in the passage I have just quoted from *Boale v. Dickson* to be correct, it may well be conceded without affecting the constitution of the Act. It may be thought that the Legislature had over much regard for the interests of the lumbermen, and too little regard for the interests of riparian proprietors. Our province is to construe the Act and not to fail to give due effect to it under an idea that its provisions press over hardly upon one class of persons for the benefit of another class.

I do not feel pressed by the consideration that no right is conferred upon lumbermen "to alter improve, or deepen the natural channel." It does not prove that it was not intended to confer upon them the privilege of availing themselves, in the floating of their logs and lumber, of improvements found by them to have been already made in the natural channels of the streams.

The statute makes no provision for compensation to those at whose expense improvements have been made. We may conceive that it would have been more just that provision should have been made for compensation. The Legislature, however, may have felt difficulty in the way of adjusting a scale of compensation, or may possibly have taken some view as this:—The different lumbermen make improvements on their respective properties, each for his own sake. By giving to all a common right over the property of all, we may make an approximation of doing justice to all. Some may be gainers by

doing this more than others; but it is the only way of accomplishing that which is, with us, a paramount object, the fostering of the lumber trade. That this was a paramount object is evidenced by the recitals to the earlier Acts that I have quoted.

Apart from all these considerations, we have the plain unequivocal language of the Act. To adopt the construction put upon it in *Boale v. Dickson*, we must read "all streams" as meaning "some streams" and we look in vain in the Act for any class of streams defined as they are defined in *Boale v. Dickson*. If what is supposed in that case to have been included had been really intended, section 15 should have run thus, "All persons may float saw logs and other timber during the spring, summer, and autumn freshets, down, not all streams—but such streams as in their natural state will without improvements permit saw logs, timber, &c., to be floated down them." It is too much to say that such an alteration of the Act is not construction, but legislation?

Reference is made in B. & D. "to streams of a different class to those mentioned in the third section," "down which lumber is usually brought." The streams mentioned in the third section are those down which lumber is usually brought, and on which a mill dam may be legally erected. That cannot be a stream down which in its natural state, without improvements, timber, lumber, etc., could be floated, because on such a stream a mill dam could not be legally erected. The words "all streams" could not be applied only to that class of streams. There is another class denominated "small streams," which certainly did not form the class, though they might be comprehended in the class to which the words "all streams" applied.

I am unable to concur in the construction put upon sec. 15 of the Act in *Boale v. Dickson*. There being no context, nor indeed anything whatever in any of these Acts on this subject, to control the ordinary grammatical meaning of the words used, we must read them in their ordinary grammatical sense; and should, therefore, construe sec. 15 as giving the privilege to all persons to float saw logs and other timber down all streams in U. C. during the spring, summer, and autumn freshets.

It follows that, in my judgment, the issue tried before the learned Vice-Chancellor was not an issue that arises under the statute; and that the defendants had to have the right conferred upon them by sec. 15 of the Act, to float, during the freshets named in that section, their timber, rafts, and crafts down the streams down which they were causing them to be floated when their rights were called in question by the plaintiff's bill.

We, of course, do not question the propriety of the course taken by the learned Vice-Chancellor in accepting the interpretation put upon the Act in *Boale v. Dickson*. But being unable, after a careful consideration of the various Acts passed upon this subject, to concur in that interpretation my conclusion is that the plaintiff's bill must be dismissed.

For reasons which the Chief Justice gave at length, each party is left to pay their own costs.

## DIFFERENCE OF OPINION.

In the foregoing decision delivered by the Chief Justice of Appeal, Patterson, J., and Morrison, J., concurred, but Burton, J., held different views. We publish his judgment below.

## CHIEF JUSTICE BURTON'S OPINION.

In this case I have the misfortune to differ with my learned brothers, and if this had been a court of last resort, whilst not concurring, I should not have thought it proper to express my dissent, but under the circumstances I think it is but fair to the litigants and respectful to my colleagues briefly to express the grounds on which I feel compelled to come to a different conclusion. The expiration of the general common law principles applicable to inland waters would seem to be well stated in the case of *Waldsworth v. Small* (2 Fairfield, 280), and to be consistent with the doctrine in the tract *de fure maris* sometimes, but it is said erroneously, attributed it to Lord Hall, viz. that those streams which are sufficiently large to bear boats or barges, or to be of public use in the transportation of property, are highways by

water, over which the public have a common right, and the private property of the owner of the soil is to be improved in subserviency to the enjoyment of this public right; whilst, on the contrary, such little streams are not as floatable, that is, cannot in their natural state be used for the carriage of boats, rafts, or other property, are wholly and absolutely private, not subject to the servitude of the public interest, nor to be regarded as public highways by water, because they are not susceptible of use as a common passage for the public. Numerous decisions are to be found at a very early date in the United States to the effect that although the adaptation of the stream to such public use may not be continuous at all seasons, yet the public right attaches and may be exercised whenever opportunities occur. In the case of *Thunder Bay River Company v. Speedily*, 31 Mich., 343. Mr. Justice Cooley thus refers to the subject:—"Nor is it essential to the easement that the capacity of the stream in its natural state and its ordinary volume of water should be continuous, or, in other words, that its ordinary state at all seasons of the year should be such as to make it navigable. If it is ordinarily subject to periodical fluctuations in the volume and height of its water attributable to natural causes, and recurring as regularly as the seasons, and if its periods of high water and navigable capacity ordinarily continue a sufficient length of time to make it useful as a highway, it is a subject to the public easement—referring to *Morgan v. King*, 35 N.Y., 450, 18 Barbour 284, and 30 Barbour 9."

It would seem that this very reasonable view of the common law doctrine in reference to these streams had at a very early day been recognised by our own Legislature.

Thus we find in the first act passed in Upper Canada in reference to mill-dams, 9th Geo. IV., c. 4, that it was passed in the interest of persons engaged in the lumber trade, to afford facilities for the conveyance of their rafts and lumber to market, and that the owners of mill-dams, erected on the proprietor's own lands, across any stream down which lumber was usually brought, were compelled to make provision for its passage by the construction of sufficient aprons, and in several other Acts before we come to the 12th Vic. provision is made for floating down square timber and other manufactured lumber prepared for market.

The latter Act, though passed also evidently in the interests of lumbermen, made provision also for the protection of the mill owner so long as he complied with the conditions prescribed, otherwise the lumberman was at liberty to abate the dam as a nuisance if it interfered with his use of the stream.

In the same Act, however, we find the Legislature using language not only confirmatory of the view that the public had the right to use such streams as I have referred to, but declaring that all persons may during the spring, summer, and autumn freshets float sawlogs and other lumber, rafts, &c., down all streams, a provision which in my opinion was intended to be simply declaratory of the Common Law right of everyone to use every stream that was capable, in its natural state, and its ordinary volumes, of transporting in a condition fit for market the products of the forests or other property, with an express statutory declaration superadded that it was not essential to the public easement that the capacity of the streams as those defined should be continuous, but that it should be exercisable even though it could only be so exercised in times of freshet.

This was then the state of the law in several of the neighbouring States where lumbering operations were carried on to a very large extent, but it was not the universal rule there, the courts in some places holding that a stream which is not capable of being used at any time for the passage of boats or the floating of rafts and logs, except when swelled by rains or the melting of snow, is not in any legal sense a navigable stream, but is private property and not subject to the servitude of the public easement.

And this being the state of the authorities, it is not unreasonable to assume that a Legislature dealing with a similar state of things intended to place the question beyond dispute, and to declare that even though the stream



## THE TRADE AND THE PUBLIC.

It is a peculiarity of all class periodicals that in advocating the rights of the interest they undertake to represent they seem to give themselves no concern about the public good, as if that might be left to take care of itself. One might almost fancy their objects were antagonistic, for, while the one is always lamenting when low prices prevail, the other rejoices in getting its commodities as cheaply as it possibly can, and people may be said to trouble themselves very little about the cost of production of the article they want, when they go to market to lay out their money to the best advantage.

What avails it that the dealer can show that he is offering his goods at the lowest shadow above cost price, if the man over the way is willing to sell a similar and equally good material at a still lower figure? Ever since the second Sir Robert Peel's time, when he became the advocate of free trade (having previously opposed it with all his might), and gave out his celebrated precept, as if it were a happy thought to which he owed his conversion, that it was a first principle of trade "to buy in the cheapest market and sell in the dearest," all idea of taking into consideration the expenses incurred in producing the material we are inclined to deal in has been abandoned, as an exploded weakness with which free trade has no sympathy.

But there was nothing original in Sir Robert's plausible phrase, which became popular merely because he had uttered it, as a novelty, and it was taken up and repeated as the essence of wisdom which embodied in a few words the whole doctrine of free trade, and left nothing more to be said about it. It had, however, long before been practically adopted by those branches of business which the police are supposed to keep an eye on, and of which we have a well-known representative in the character of Mr. Fagin, the amiable patron, crow-hill, of Oliver Twist, and that class of trader might almost justify his calling by proving it to be in strict accordance with Sir Robert Peel's precept, and possibly its tendency has been in some degree to demoralize trade. We may be less scrupulous in looking for cheapness, as a sort of duty enjoined upon us by this modern law of trade, which does not suggest to us the necessity of ascertaining how the goods we are in pursuit of came to be so cheap. That duty is left to the teaching of the statutes at large, if people choose to run the risk of them, and place implicit confidence in the honesty of the seller, without asking any inconvenient questions as to his rights of proprietorship in the commodity he is willing to dispose of so much below the market price. And there is always the chance of escaping ill-consequences by appealing to Sir Robert Peel's apothegm. It is easy to plead that unless you "buy in the cheapest market and sell in the dearest"—that is, the dearest market available—business cannot be done at a profit under free trade.

If it has not lowered the standard of trading morality in some appreciable degree, at all events the term "connection," as applied to business, seems now-a-days to have a different meaning from that which it formerly possessed. In past times the word was understood to mean certain parties who dealt regularly with a certain house for certain goods, and mutual dealings in this way often continued for a lifetime; now it means little more in a general sense than correspondents and dealers you are known to, and with whom you have an occasional transaction when they cannot get the goods a fraction cheaper elsewhere.

Fortunately, however, in the timber trade we are less exposed to malversations of this kind than in almost every other. The bulkiness of the wares is a sort of guarantee for integrity in the manipulation of them. They cannot be hidden away in bags, boxes, or barrels, and pass muster in transmission as something totally different. There they are, conspicuous to all the world, wherever they go, indifferent to comment and criticism, and entirely independent of it.

Neither is the apparent neglect of the public's interest so real as at the first it might be accounted in treating only of the advantages to trade. The desire to see prices kept up to a fair paying level arises from a conviction, not neces-

sary to be constantly obtruded, that it cannot be good for the community at large that any important and legitimate trade should be carried on at a loss. A price may be very moderate and yet be a paying one; on the other hand, it may seem rather high and yet the sellers may be getting nothing by it. Such has been the state of the timber trade in many parts of Britain latterly, where wholesale transactions have borne no profit because too much was paid at first hand, in comparison of the plentifulness of the supply, to bring the commodity to market. The duty of the journalist who has undertaken its cause is then to call the attention of the trade to this state of affairs by pointing out the sources of its difficulty, collecting and submitting to them the facts that bear upon it, and suggesting how the evil may best be mitigated. But in a ~~case~~ there is no implicit disregard of the good of the public, who are supposed to gain what the trade is losing. There is nothing of the spirit of monopoly, and desire to obtain more than the fair value of the goods brought forward, and for the rest the public is well able to take care of itself, and requires no special pleader to teach it how to make the hardest bargains, as we have intimated, without taking conscience at all into its calculations.

There is a disposition in fashion to insist that a fair day's work should be supplemented by a fair day's wages, but no one agitates for a fair profit to the man whose goods are fairly paid for. He must take his chance in the market against another who has perhaps not paid for the commodity he is selling, and never means to. Such are the impediments which come between a trader and his just expectations when he thinks he has laid out his money well, and is looking that it should yield him a reasonable return.

These thoughts have been suggested to us by the apparent necessity we have latterly been under of always harping on the same string. We look in vain for some encouraging news from the provinces, as to the solid revival of the trade for which the importers are waiting. If any of our correspondents speak cheerily, it is merely, after the manner of Captain Cuttle, at the *Wooden Midshipman*, in Leadenhall street, when he rubbed his hands, and thought business looking up, because somebody called and inquired the price of a pair of spectacles. The trade continues languid, and without hope of immediate improvement, though the manufacturing industries are reported as doing better than they were a little while back. Liverpool, Hull, Grimsby, Hartlepool, and Newcastle are all in suspense, and have no faith in obtaining satisfactory prices for the new arrivals, which are already coming forward in rather formidable proportions (especially in Liverpool), though they have not as yet materially affected home prices, because their effect was previously discounted, and people refrained from extending their orders abroad till they saw how their market would bear the new strain on them of their first importation.

On the other side of the Atlantic they are more hopeful of this season's trade than they are here, and our Chicago correspondent's letter (June 11, p. 361) draws a bright picture of the prospect before it out there, but not without a suggestion that "the cutting of logs may be superabundant."

"A considerable increase is looked for by many in the amount of lumber turned out, as compared with the cut of other years. The majority of operators favor this view of the situation, and look for an abundance of lumber, though not more probably than the demand will call for."

The season has, it seems, been very favorable for getting the timber clear of the drives, and there is no anticipation of any difficulty in bringing the logs forward, as we learn from the concluding paragraph of the letter aforesaid. All idea, therefore, of any curtailment of our supply for this year has completely vanished, whether it be from Northern Europe or from America, and in its place a strong impression is gaining ground that our markets will be pretty severely tested on all sides.

In Liverpool it is expected that steamers will take a lead, even in the Atlantic timber trade, this summer, and as they will run at very moderate freights the shippers on that side are

not unlikely to charter on speculation in the absence of orders; as in the worst case they will only have to hold stock on this side, instead of at home, with the chance of disposing of it during the winter, when if unshipped it would have to lie idle and useless until the following spring. It is the uncertainty which pervades the trade on these points that has kept it so quiet and unspeculative so long.

If the public gains by this kind of business, the trade does not like it.—*Timber Trades Journal.*

## PRACTICAL ITEMS.

Loose pulleys require constant attention and much oil, and are very hard on the belt. It is best to have them a trifle smaller than the tight pulley, and with a stop or flange running up to the diameter of the tight one. This takes the strain off the belt and the friction from the pulleys.

Where a mill is driven by mortise gearing, it has been recommended to use a mixture of pulverized chalk and linseed oil, for lubricating purposes. It is said that this mixture is much better for wooden cogs than oil, tallow or flour. The chalk for this mixture should first be pulverized and then sifted with a fine sieve.

Any sharp steel will cut glass with great facility when kept freely wet with camphor dissolved in turpentine. A drill may be used, or even the hand alone. A hole may be readily enlarged by a round file. The ragged edges of glass may also be thus smoothed with a flat file. Flat window glass can be readily sawed by a watch spring saw, by the aid of this solution. In short, the most brittle glass can be wrought almost as easily as wood, by the use of drilling tools kept constantly moist with camphorized oil of turpentine.

Ordinary white wood can be given the appearance of the finest black walnut. The wood first thoroughly dried and warmed, is coated once or twice with a strong aqueous solution of extract of walnut peel. When half dried, the wood thus treated is brushed with a solution compound of 1 part (by weight) of bichromate of potassa in 5 parts of boiling water, and after drying thoroughly is rubbed and polished. By this treatment, the color is said to be fixed in the wood to the depth of one-twelfth to one-sixth of an inch, and in the majority of cases the walnut appearance is declared to be very perfectly imitated.

So eminent an authority as Professor Sweet says, in reference to the question of economy by reduction of friction, that of two systems, one offering a saving of 10 per cent. by reduction of friction, and the other 20 per cent. in the use of steam, he would take that which led to a saving in friction, which of necessity implies saving in maintenance, attendance, repairs, delays, etc. The loss by attendance, repairs and delays is greater in small engines than in large. To get economy in friction, there should be generous wearing surfaces, well fitted, and properly lubricated, and the engine should be in absolute alignment. We often find shafts which are set in perfect line and remain so when at rest, but which are deflected by the strains put upon them while at work.

The *American Architect and Building News* says that maple is unquestionably better than the average yellow pine for flooring. It is very fine-grained and tough, though perhaps no harder than yellow pine, and is completely free from the liability to splinter, which injures much of the latter. Some years ago a number of Boston mill-owners made thorough tests of various kinds of material for flooring their factories, where the wear is very severe, and concluded that maple was superior to any other. Very possibly this experience may have led to the favor with which maple house-floors are regarded in that region.

Fourteen years ago a Mr. Sterling, of Monroe, Michigan, placed two gate posts of white oak in front of his residence. When they were set he bored into the top of each with an inch and a half auger a hole three inches deep, filled it with common salt, tightly plugged it, and coppered the posts. Having occasion recently to change the location of the posts, he found them as sound from top to bottom as the day they were planted.

## HOW FORESTS PRODUCE MOISTURE.

Dr. Franklin B. Hough, United States Commissioner of Forestry, gives the following explanation of the effects of forests on moisture: It is a matter of common remark that our streams diminish as the woodlands are cleared away, so as to materially injure the manufacturing interests depending upon hydraulic power, and to require new sources of supply for our state canals, and for the use of cities and large towns. Many streams once navigable are now entirely worthless for this use. The mode in which this influence operates will be readily understood when we consider the effects of forests upon the humidity and temperature of air.

A deciduous tree, during the season when in foliage, is constantly drawing from the earth, and giving off from its leaves a considerable amount of moisture, and in some cases this amount is very great. This change of state from a fluid to a gaseous condition, is a cooling process, and the air near the surface, being secured from the sun and from the winds, becomes, by this means, so humid that a rank, succulent vegetation often springs up and thrives, which in an open field would wither and perish in an hour. The air being thus charged with moisture and cooled, does not take up by evaporation the rains which fall, and the soil, being more open, readily allows the water from melting snows and from showers to sink into the earth, from whence a portion appears in springs and in swamps, which give rise to rills and streams.

The air at all times holds more or less watery vapor in suspension, and its capacity for doing so is increased as the temperature is raised, not by a steadily gaining rate, but more rapidly as the heat is increased. There can be no evaporation when the air is saturated with moisture, and no deposit of water in any form until the temperature is reduced to the point of saturation. It is not yet determined as to how far the cooling and moistening influence of a grove may extend. It must depend upon many circumstances, and especially upon the slope of the surface, and the direction of the winds. The effect is often apparent to the eye from the freshness of the herbage in adjacent fields for many rods in width.

The effect of woodlands in retaining snows where they fall, and in delaying their melting in the spring, has been everywhere observed in snowy countries. In such localities the snow cannot be drifted by the winds, and when it melts, it disappears slowly, sinking into the soil rather than flowing off upon the surface. The effect of this delay in checking a too early appearance of fruit blossoms, cannot be mistaken. The result is in fact similar to that of considerable areas of water, such as our northern lakes, along the borders of which, especially on the lee-side, fruits are found to flourish with the greatest success. In a country interspersed with clumps and belts of woodlands, the snows drift less, and their melting more evenly over the surface cannot fail to be beneficial to the interests of agriculture, and more especially to meadows and pastures.

## HEMLOCK RAILROAD TIES.

During November, 1866, the Rock Island railroad laid 2,000 hemlock cross ties that had been saturated with chloride of zinc in the road bed of the main line, some three-fourths of a mile west of Englewood, as an experiment. Last Saturday these ties were examined, and several of them brought to the company's office in Chicago. Some of them were found in good state of preservation, while others that had been rejected were found sound within, but were rotten on the surface where exposed to the wet. Hemlock is considered very poor as regards its preserving qualities. It is also claimed that it usually commences decaying in the center. Near these hemlock ties were some oak ties that were laid in 1873, some of which were badly decayed. Upon these specimen ties had been laid at the same time steel rails from England, where they still remain, they also having been placed there on test.

THEY ALL DO IT.—Everybody uses "TRABERRY" for the teeth and breath, the newest, brightest, coolest little toilet gem extant. Try a cent sample.

**RAFTING OPERATIONS AT THE FREDERICTON BOOMS.**

**THE LUMBER CUT ON THE ST. JOHN AND ITS TRIBUTARIES.**

One of the grandest sights to be seen in the Province and one that would well reward a journey of many miles, is the enormous mass of logs, estimated at over 50,000,000 feet, at present lying in the new boom of the Fredericton Boom Company at Sugar Island, above Fredericton. A fine view of the logs can be obtained from the Keswick bank, which, at this point, rises to a considerable height above the level of the river. Competent judges pronounce it to be the largest mass of logs ever collected together on the St. John. The logs lie in a natural pocket, the sides of which are formed by the mainland and the Island shore, with the base resting upon and being supported by enormous piers built up from the flat rock bottom of the river, a height of 23 feet, the larger ones being each loaded with over 150 cords of stone. There are some 14 piers all told, including side piers to which booms are hung to keep the logs off the low parts of the Island shore, and a few supporting piers on the main shore. The breaking up of the ice at an unusually early period last spring, prevented the completion of all the proposed piers, and it was feared by some that the boom would, therefore, prove too weak to hold the great run of logs, but these fears fortunately turned out to be groundless, though the boom was tested by one of the greatest freshets ever known on the river. When the grand rush of logs came, the current was so strong that after the boom had partially filled the logs began to "run under," and at such a rate that for three days there was little or no increase on the surface, million after million disappearing from sight as soon as they touched the edge of the jam—the consequence being that the logs as they now lie in the boom are piled to a depth of twenty-five feet. Had the water risen above the tops of the piers the booms would have been torn away and the great mass of logs, thrown into the current, would have swept all before it, wrecking the old Fredericton boom miles below, and strewing the shores of the river on down through Sunbury and Queens. As it was, the water came within a few feet of the top of the piers, which, though built on the flat sand-stone bottom of the river, were so strongly constructed and heavily weighted with stone that they nobly withstood the enormous and somewhat unexpected strain. It is the intention of the agent of the company, Stephen Glasier, Esq., under whose personal direction this boom (as well as all the others along the river) was constructed, to further strengthen it next winter, and to raise the piers five feet higher. The boom space at Sugar Island is from two to three miles long, and, if required, 100,000,000, or double the amount now in the boom, can be held there. The logs are conducted into the Sugar Island boom from the natural channel of the river by means of Pond's sheer booms, an invention that has to a great extent

REVOLUTIONIZED THE RUNNING AND DRIVING of lumber on the St. John. Formerly the logs floated down with the current, great numbers being deposited on low lands where they were left high and dry by the receding freshet, only to be removed later in the season by the "stream drivers" with great labor and at considerable expense. In addition to the delay thus caused in getting the logs to market, the log owners had to indemnify the farmers for the damage to their intervals and island lands caused by the deposit and removal of the drift logs. Now, sheer booms, placed at various points along the upper St. John and its chief tributaries, keep the logs in the current of the river and carry them by the low lands, on which they would otherwise lodge. Not only is the work of stream driving thus reduced to a minimum, but the logs are hurried on to the Fredericton booms, and consequently to market, at a much earlier date than by the old method. The almost simultaneous arrival at the booms of the great mass of the cut on the upper waters has necessitated a radical change of operations on the part of the

FREDERICTON BOOM COMPANY, which has been successfully carried out this season on a large scale. In former years the

several booms below Fredericton on the Lincoln and Maugeville shores were sufficient to meet the demand, the first run being rafted so as to make room for successive arrivals, but when the drives began to come in more rapidly it was found necessary to provide more extended boom facilities. The old boom ground had been well chosen, though despite all precautions the booms were occasionally broken by the pressure of the run of logs in the spring, supplemented by high winds and heavy freshets, entailing an outlay for the recovery of the logs along the shores of Sunbury and Queens that materially reduced the profits of the company. There were other localities, of course, that might have been chosen for the booms, less exposed to the rake of the wind and sweep of the freshet currents, but they lacked one great essential—the current would carry the running logs away from, instead of into them. But even this seemingly insurmountable obstacle has been met and overcome by the application of Pond's sheer booms, an invention whereby the course of running logs can be directed towards either shore at will, despite the set of the current. After a series of experiments with the sheer boom, it was decided to locate a large boom on the Douglas shore, between the island and the main land, into which logs could be directed by a sheer boom placed at the head of the island. This boom is attached to thirteen jam and seven sunken piers, is about two and a half miles in length, and will hold nearly forty million feet. This venture proved to be a decided success, proving conclusively that the company acted wisely, when enlarging their facilities, in selecting a site at Douglas. Rafting operations were carried on there with great rapidity last summer, the only drawback being the delay caused by the unusual lowness of the water at one time. In addition to the booms there, the company put up suitable buildings for the accommodation of the men, a cook house, stables, business office, &c.

The addition of the Douglas boom enabled the company to successfully catch, hold and raft all the logs cut for the past two or three years; but the indications of an increased output for 1881 lead the company to make a still further enlargement to meet the requirements of this season's operations. To this end, the boom at Sugar Island, above described, was constructed last winter, and it has proved to be one of the best moves ever made by the company.

**THE SEASON'S WORK.**

The operations of the Fredericton Boom Company this season have been on an unusually large scale. They have, so far, received some 125,000,000 ft., divided as follows: 50,000,000 in the Sugar Island boom; 30,000,000 in the Douglas boom, and the balance in the Gill, Glasier, Sterling and Mitchell booms, below Fredericton. Some idea of the extent of their operations may be formed when it is stated that it is about 18 miles from the foot of the Mitchell boom in Lincoln to the head of the boom at Sugar Island. None of these booms in any way interfere with the free navigation of the river either above or below Fredericton. The company employ some 250 men this season, including drivers and sheer boom men. Rafting operations are carried on at Douglas, where 200 joints per day are made up, and at the Mitchell boom, below Fredericton, where the day's work averages about 140 joints. One hundred men are working at Douglas and about eighty men at the Mitchell boom. The logs in the Sugar Island boom will be run down to the Douglas boom, some little distance below, and rafted there as fast as possible. The Douglas boom is so constructed that rafts from the Keswick, at its head, can be floated down through into deep water below, for towing to market. It is expected that all the logs in the Mitchell boom will be rafted in about a week, when the crew of rafters will be transferred to the old rafting ground at the Glasier boom. The entire operations are in charge of Stephen Glasier, Esq., the veteran agent of the company, and so far this season without the loss of a single log.

It is estimated that there are about 20,000,000 yds. to come down the river, though much more is hung up high and dry by the sudden fall of water in the main river and tributary streams.

**OTHER OPERATIONS.**

Mr. Alex. Gibson has done a heavy business on the Nashwaak during the past winter, confining his operations exclusively to that section. It was thought that he would get out some fifty millions, but the actual output will fall short of that figure. Finding the spruce drying out in one locality, he concentrated a large force there, having 90 span of horses hauling out to one landing, though over two roads. He has the Nashwaak so well provided with dams that he can get water enough to carry down his logs at any time desired. This season all his logs were got out early. They are being sawed at his mills on the Nashwaak, and at Morrison and Robinson's mills below Fredericton.

The output on the Keswick river this season is estimated at about five millions, all of which will be rafted on that river.

A careful estimate, based on the most reliable information, shows that independent of Mr. Gibson's operations, about two hundred million feet have been cut on the St. John and its tributaries during the past winter.

The tugboats of Messrs. D. D. Glasier & Son are all at work towing rafts down to this port.

The water is unusually low for the time of year, much to the annoyance of operators on small streams.—*St. John Sun.*

**NEW INDUSTRIES.**

Two gentlemen intend to apply to the Council at their next meeting for exemption for a term of years for an extensive tannery which they propose establishing in Toronto.

It is expected that in about four months an important new industry will be in full running order in this city. An application has been made for a charter to incorporate the "Toronto Grape Sugar Company," having a capital of \$200,000, the applicants being the Hon. Thomas N. Gibbs, Ottawa; Messrs. James Michie, John Loyer, James McGhee, James S. Holt, Toronto; and E. P. Stikes, Buffalo. Plans are being prepared for a factory with a capacity to use 2,000 bushels of corn per diem, and so arranged that it could be enlarged to a capacity of 5,000 bushels. The factory will be erected on the Esplanade, on the water lots granted by the City Council three weeks ago to Mr. Holt for that purpose. Arrangements will be made so that corn and coal can be received direct into the factory from all the railways or by boat on the water side, and goods will be shipped in the same manner. The refinery will be eight stories high, with an elevator tower on top, and will be built of brick with stone foundations on piles driven into the rock. To get the buildings erected as rapidly as possible the electric light may be used, so that building operations may be carried on both day and night. The company will employ about 150 hands, and the best skilled experts have been secured. The latest patents and improvements will also be introduced. The property has been exempted from taxation by the City Council and a 21 years' lease of the water lots, 133 feet by 375 feet, obtained at a nominal rental.—*Toronto Globe.*

**Two Thousand Dollars.**

The easiest, cheapest and best way to secure the above amount is to apply for membership in the Mutual Benefit Association of Rochester, N.Y. Pay Dr. S. B. Pollard, 56 Bay Street, one dollar for four medical examinations, he will send your application to the head office, if you are accepted as a member they will issue a certificate of membership, which, on payment of eight dollars, entitles you to full benefits as a member, should you die to-morrow, next day, next week, next month, or any time within three months, this Association will pay to your heirs, or assigns, the sum of two thousand dollars. At the expiration of the three months all you have to do is to pay your pro rata amount, which is from 20 to 75 cents on the death of some other member, who has done nothing worse than to die during the three months just past. By paying your assessments on deaths, you keep your certificate alive, and at the commencement of the second year you are assessed two dollars per thousand to keep up office expenses, etc., for the next year. No easier, surer or better schemes to carry two thousand dollars has ever been devised than the Mutual Benefit Association, of Rochester, N.Y.

**Penetangishene Foundry**

**MACHINE SHOP**  
ORRIG & CAMERON, Proprietors.

The undersigned beg to announce to the public that they are prepared to make all kinds of Mill and Steamboat Brass and Iron Castings. All kinds of PLOW CASTINGS kept on hand. Plow Point and Landslide a specialty. We have first-class machinery and are prepared to do all kinds of TURNING or PLANING on short notice. We hope by strict attention to business and moderate charges, to merit a share of the public patronage. All work guaranteed.

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MANUFACTURER OF  
**Agricultural Implements, Etc**  
MILLBROOK, ONTARIO.

HAVING DISPENSED WITH THE SERVICES OF AGENTS, I take this opportunity to bring to the notice of intending purchasers of Reaping Machines, that I have now on hand a quantity of the Celebrated

**HANLAN REAPER,**

which has NEVER BEEN BEATEN YET, and am prepared to allow the Agents commission—FIFTEEN PER CENT on all purchases.

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CHAINS, ROPE, and

**LUMBERING SUPPLIES.**

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WHOLESALE DEALER IN  
*White Pine, Basswood & Hardwood,*  
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PROPRIETORS OF THE  
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ESTABLISHMENTS of Corks in stock and cut to order. Corks & Life Preservers a specialty. Corkwood, Tinsmith, Capsules, Wire, &c.  
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We have for Sale a large quantity of PINE, OAK, WHITEWOOD, ASH, CHESTNUT, CHERRY, BUTTERNUT, BASSWOOD, &c.  
Also on hand 120 M dry Oak 2 to 4 inches thick, will be sold cheap to close it out.

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Two Planers for sale or exchange for a Boiler

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**Flexible Board Rules,**

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**GEORGE STETHEM,**  
PETERBOROUGH.

## WANTED,

An efficient and reliable correspondent for the CANADA LUMBERMAN, in each of the following cities, viz.:

MONTREAL, QUEBEC,  
and HAMILTON.

For further information, address

**TOKER & CO.,**

CANADA LUMBERMAN OFFICE, PUBLISHERS,  
Peterborough, Ont., June 13th, 1881.

### Travelling Agent.

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

## The Canada Lumberman

DEVOTED TO THE LUMBER AND TIMBER INTERESTS OF THE DOMINION.

PUBLISHED SEMI-MONTHLY BY

TOKER & Co. PETERBOROUGH.

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Special rates will be made for page, half page and column advertisements.

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

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

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

PETERBOROUGH, Ont. JULY 15, 1881.

THE Ottawa Free Press, in speaking of THE CANADA LUMBERMAN, says:—"It is a splendid industrial publication, devoted mainly to the lumbering business."

LUMBER is very firm at Davenport, and some lots are sold above present list; a few days of dry weather and the advance will become general on all common or low grades.

A MINNESOTA lumberman estimates that Manitoba alone will take 40,000,000 of lumber from that state this season. If that proves to be so, our friends of the saw in the west must be having a good time of it.

EASTERN buyers are reported as operating largely in the west just now, and are securing all the lumber they can in Michigan at an advance of from one to three dollars per thousand as compared with the prices ruling in January 1880.

THE Northwestern Lumberman is our authority for stating that manufacturers and buyers in the west have discovered that the lumber made from maple logs cut in winter and sawn before the 1st of July, is worth \$2 a thousand more than if the sawing be done after the date named.

THE yards throughout St. Louis all report a fine trade, with brilliant prospects for the future. Figures on white pine grades are very firm, with a strong tendency toward advance. Quotations on yellow pine are very low, and still falling. The advance of from 50c. to \$1 per 1,000 feet on white pine in Chicago, and a change will naturally be followed at St. Louis in the next ten or fifteen days, if not sooner.

A STREAM MILL is to be erected at Wood Point, by the Bay of Fundy Quarrying Co. The building will be 60x40, the engine 60 horse-power. It is the intention of the Company to saw dimensions and other lumber for the Boston and New York markets, to be shipped with their cargoes of stone.

FROM Manchester, N.H., we are informed that there is a large increase in the lumber trade in that section this year as compared with former years. Local mills are doing a large trade in hemlock and spruce which are still to be had in large quantities in the northern part of that State and in Vermont, while their chief supply of cedar shingles come from Sherbrooke, Quebec, and retail at \$3.50 to \$4.25 per 1,000.

MR. J. R. BARBER, of Georgetown, has paid the membership fee of the Mechanics' Institute of that town for forty of his employees. This is certainly commendable, and we know many employers who would not miss the amount thus expended. Indeed we are quite sure that if more encouragement were given young men there would be less carousing and drinking and more work performed.

WE have been aware for some time that negotiations were pending for the sale of the entire lumbering property of Messrs. McDougall & Co., Harwood, to Mr. R. C. Smith, of Fenelon Falls, and we are now in a position to state that the sale has been completed, and that Mr. Smith is now in full possession. We also understand that Mr. Smith has some idea of transferring the machinery now in the mill at Harwood to the French River, where he owns extensive limits.

A LARGE lumber business is being carried on by parties in Bridgewater, Nova Scotia. Messrs. E. D. Davison & Son's two mills will cut during the season 15,000,000 feet of lumber; Dufus & Co.'s mill at Summerside will cut 6,000,000; C. H. Chase expects to cut 2,500,000; Alex. Nelson will cut 1,000,000 ft.; Jas. A. Curll expects also to cut 1,000,000 feet, a total of 25,500,000 feet lumber, a gain of about eight per cent. This gives employment to 700 men, and supports 3,000 people. This is good for the County of Lunenburg.

OUR readers will have noticed that for some time past the universal cry from Britain has been a dull and drooping timber market. Notwithstanding that every market, except those depending upon the British market, on this side of the Atlantic has been firm with a decidedly upward tendency. Under such a state of affairs it does seem to us somewhat strange that our eastern shippers, and especially those of New Brunswick, do not turn their attention to the "booming" markets in the Eastern States. Even if they netted no more money by shipping to the latter market than they would by shipping across the Atlantic, such shipments would relieve the British market from its present glutted state, and doubtless secure for them better prices for what they did send there.

THE lumber business of McGraw & Co., at Tonawanda, has been transferred to the Export Lumber Company, (limited) of 87 Wall street, New York, having been purchased by that concern. The company is a very extensive firm, and one of the largest buyers in the eastern market, and Tonawandians are jubilant over the acquisition to their business interests. The company possesses a capital of \$150,000, and transacts mostly an export business, as its name indicates. It has leased, for a number of years, from the McGraw estate, the eligible and desirable docks and river front owned by them at Tonawanda, giving it excellent facilities for receiving lumber or forwarding it, either by rail or canal. The concern has bonded yards at Hunter's Point, Long Island, and Hochelaga dock, Montreal, in addition to its New York branches, and its fine property in Tonawanda. The yards at Tonawanda will be stocked up at once with the product of the western mills. Mr. Mackintosh is to be the local manager, and has already entered upon the duties connected with his position, and assumed control of the business.

### EXPLORATIONS ON THE UPPER OTTAWA

WE learn from the Toronto Globe that about the 20th of June Mr. Niven, P.I.S., of Hali-burton, was dispatched on an exploratory survey of the country north of Lake Nipissing. He took with him two exploring parties, and expects to occupy about three months in the work. The district to be explored commences about twelve miles north of the lake, and extends northward to Lake Tamagamingue, which lies half way between Lake Nipissing and Lake Timiscamingue, where the Ottawa takes its rise. The Ottawa on the east and Wahnapitacing and the Wahnapitac River on the west are the utmost limits of this exploration, which includes an area of sixty miles in length between these limits, by a breadth north and south of twenty-four miles. An exploration of this kind has not been made in this Province for very many years, the work of filling in the rough outlines of the early explorers having occupied the attention of the Crown Lands Department.

### THE OBJECT OF THE EXPLORATION.

The question of timber limits has no doubt something to do with the exploration, but the meagre information regarding the soil and climate of this territory has been such as to lead to a desire to know something definite regarding its capacity as a grain growing district. What little is known indicates that the soil is possibly better than on the Ottawa south of Matawan, and the climate sufficiently warm for the cultivation of wheat. In the instructions given to Mr. Niven the objects of the exploration are set forth as follows:—

1. To run the outlines in a block of certain townships, to act hereafter as a base in their subdivision.
2. To ascertain by exploration as far as practicable the general nature of the soil, timber, minerals, &c., in the field of operations.

### MR. NIVEN'S INSTRUCTIONS.

Many of the instructions given Mr. Niven, are a minor details, which, however important to the department, have little interest for the public. Other instructions are of a general character, leaving much to the exercise of the common sense of the explorer. It is the intention of the Government to extend through this territory the same system of survey as is in existence on the north shore of Lake Huron, and this information is a guide for the general outlines to be mapped by Mr. Niven. The departing point of the exploring party is the north-east angle of the new township of Field. From this angle a line is to be drawn due north, and at intervals of six miles posts are to be planted, and other indications made to guide future surveyors in laying out townships. Six miles north of the angle referred to a base line is to be drawn to the west, and a similar plan adopted in marking for the north and south boundaries of the townships. By a base line to the east and other lines at right angles to it, the whole district is to be laid out as a base for future sub-divisions.

Mr. Niven is also instructed to explore for six miles on each side of his base lines, and for this purpose he is to select fit men, with a good knowledge of land suitable for agricultural purposes, and of trees suitable for merchantable timber. These men are also to have considerable facility in keeping notes of their explorations, and in the use of the pocket compass. The natural features of the country are to be shown, and Mr. Niven has also to examine the rock formation, collect small specimens of fixed rocks, attaching to each a number and noting in his field-book the exact locality in which each specimen has been found. If the rock is stratified its dip is also to be observed. He is also to ascertain by astronomical observations the latitude of different points, and, if time permit, is to sketch in the position and extent of Lake Tamagamingue.

### Reading the Ads.

Our readers will find items of interest in our advertising columns. Among our regular advertisers will be found such a variety of essentials, with the various other matters directly connected therewith, that a careful perusal will in nearly every case develop something in the way of information that must become directly valuable to our readers.

### THE FUTURE OF LUMBER.

So much has been written and said concerning the rapidity with which our forests are being felled in lumbering operations that it would not be surprising if corners in the wood market were, ere long, attempted. It has in a number of cases, been "ciphered out" that our timber supplies will be exhausted within thirty years, if the present rate of lumber production is maintained, some writers have even placed the evil day no farther off than twenty years. Were these croakers in a position to verify their predictions, the situation would be, indeed, alarming, but, as the trade has not as yet experienced any lack of material with which to operate, it may be assumed by outsiders, that no grave apprehensions as to the future are entertained by those most vitally interested.

That our production and consumption of lumber is enormous, must be obvious to the most casual thinker; that our present sources of supply must eventually be abandoned is freely admitted, but the Lumber World does not anticipate that its children's children will be compelled to forego the comfort and elegance of a walking stick, or dine off cast iron tables. It should be remembered when "exhaustion of our timber supplies" is spoken of, that pine is generally referred to, but there is yet standing in the states of Wisconsin, Michigan and Minnesota a sufficient supply to meet the demands for a great many years to come. The timbered region of Texas is also immense, while Georgia is, and has been for many years, a great lumber producing state. Even Pennsylvania has thousands upon thousands of acres of timber lands in which the ring of the woodman's axe has never been heard, and away down in Maine large amounts of lumber are being, and for many years to come will continue to be, produced. It is true that the cost of log getting is yearly increasing, owing to the necessity for going farther and farther inland, away from the rivers and streams, and, because the distance logs must be hauled before banking, is yearly becoming greater. This, however, should by no means be accepted as indicating an alarming decrease in our timber supply, but, rather, as evidencing an increase in its value.

Our importations of Canadian lumber, while already of respectable proportions, are small in comparison to what they might, and in the not far distant future, probably will be. Were it not for our protective tariff, it is doubtful if western pine would command much attention in eastern markets, and it requires no prophet to say that if western pine becomes so scarce as to advance in price, beyond the limit at which the Canadian article, paying duty, can be profitably imported, then will Canadian pine usurp and hold the position of prominence, and, as one of our contemporaries puts it, immense as the present accessible sources of lumber in Canada are known to be, recent explorations have shown that the vast solitude to the south and west of Hudson Bay is an almost unbroken forest of white and red pine and their congeners. This region, which the imagination, in default of accurate information, has pictured as the mother of icebergs and the home of polar bears, is now found to be one highly inviting, if not to the farmer, at least to the lumberman. Ice and snow for one-half the year are his hand-maidens. Through their assistance he is enabled to "skid" and "bank" his logs along the streams on which, when the spring thaw comes, they are borne without appreciable cost to the point of manufacture on the coast.—Lumber World.

AN iron sternship of 1,500 tons, named the Campana, has been bought in England and is to be placed on the Lake Superior route from Collingwood to Duluth. She sailed from London on June 27th for Montreal, is of light draft, and generally adapted for lake traffic.

SEVERAL mills owners in the County of Simcoe have been fined for allowing sawdust from their mills to get into the streams, among them are Wm. Train, Thomsonville, and Tackaberry, of Tocumseth. The former was fined twice.

B. Youso's saw mill at Apple River, N.B., was burned two weeks ago, with some lumber in proximity. The sleds and camps in the woods, used by the men, were fired at the same time. Incendiarism is believed to have been the cause.

**IDLE CAPITAL.**

*La Minerve*, of Montreal, calls attention to a very important question in the general interest. We refer to the very large amount of capital which has accumulated and is actually lying idle in our banks. And as our contemporary remarks, the evil continues to steadily increase, the deposits largely exceeding the amount of the paid up capital and revenue and constituting nearly the half of the general fund of our banks. According to the last report the state of the Quebec and Ontario Banks stood as follows:—

Capital paid up.....	\$63,580,300
Notes in circulation.....	24,974,633
Deposits.....	83,890,645

The first of the above sums is the exclusive property of the banks themselves, and the shareholders are interested in its management. But the administration of the remainder is a subject of general interest; for the country at large is concerned in the deposits and circulation. It appears by the bank statements to the end of December that more than half of the general fund of the banks is held in reserve by them, or something more than the deposits. It is very much to be desired that a portion at least of this enormous amount of idle capital should find employment to benefit the country. We here touch upon a very great and delicate question—the monetary circulation. Can we believe that the hard times have passed away altogether, while so much money is laying idle, so to say, held captive by fear or the lack of advantageous issues? With prosperity already returned, what would be the state of affairs if all our resources were brought into play. It is true that the banks have only a limited control over deposits and that it was only with difficulty that they can touch them. And the proof that they hardly ever do so, and that they are always ready to pay them on call is to be found in the largeness of their reserves. In reality, these moneys are private property, only placed there as a measure of safety, and its owners would not allow the banks to risk it in an industry which they do not dare to invest it themselves. In the meantime, what might not be done for the good of the country with these vast hoards? It is to be hoped that as industry increases, confidence in industrial investments will revive and our capitalists will more largely place their money in them, instead of locking it up in the banks or converting it into bank shares.—*Quebec Budget*.

**TRADES' UNION DESPOTISM.**

It is practically demonstrated that the Trades' Union organization, so far as to increase the wages of employes, is a dead failure. The loss by strikes to the individuals is very serious in many families, and to the country at large it is enormous. Any effort that shall wipe out this heresy and open the eyes of the blind will be a great blessing. If manufacturers and employes generally would consult the interest of all concerned, by agreeing on a course of combined action to resist this most oppressive despotism, they would do a great service. Suppose first, that they would resolve to give a preference to non-union men in employing operatives, and suppose, secondly, that they would give as wages ten per cent. more to non-union men than to those belonging to the union. Non-union men are preferable, because they are not liable to be called off from work at any time when a strike is ordered. They are their own masters, and can stop work when they think best and not at the dictation of others. Look at the present strike in the city of New York—hundreds walking the streets, and instead of getting \$10 to \$20 per week, get nothing but a pittance handed to them as an act of charity! Instead of earning their support by honest work, they are lounging and others work to feed them! In fact, they fill the bill as first-class paupers instead of honest, industrious mechanics.

When men can lift themselves up by their own hands, then they may be able to increase their wages by joining unions. Supply and demand will ever, as it always has, fix the price paid for labor. It is inevitable, and the most ingenious combinations cannot prevent it. The door in this country is opened very wide to the industrious. On every hand industry is assured a good living, if not "roast beef and plum pudding every day," sufficient that is good and

wholesome. Besides, there are millions of acres of land ready to yield an abundant supply of the necessaries of life. Who are those that get up trades' unions, pretending that capital is oppressing the laborer. Capital and labor must act in unison: one is necessary for the other; in fact, labor creates capital, why then should men attempt to array one against the other? Simply from interested motives! If each individual would take care of himself and not surrender, a willing slave, to stop work at command, he would not only be better off but independent. Why sacrifice our independence and move at the bidding of others. "Men and brethren, think of these things."—*Boston Journal of Commerce*.

READER HAVE YOU TRIED every known remedy for Chronic diseases, Impure Blood, disordered Liver or Kidneys, nervous and General Debility, Constipation of the Bowels, with the manifold sufferings pertaining thereto? Have you given up in despair? Try Burdock Blood Bitters; it will not fail you. A trial bottle only costs 10 cents, regular size \$1. Any dealer in medicine can supply you.

A BARGAIN—GRIST AND SAW MILL FOR SALE, paying 12 per cent. clear; price \$9,000; and above percentage guaranteed. Apply to

**JOSEPH DAVIES & Co.,**  
Lumber, Coal, & Commission Merchants,  
46 CHURCH ST. TORONTO. 1yt10

**Wanted.**

A SECOND HAND DOUBLE EDGER; also a LATH MACHINE, both in good repair. Reply stating lowest cash terms or particulars to Box 1002, Peterborough. L10

**For Sale.**

A 40 INCH LEFFELL WHEEL and COMPLETE CIRCULAR RIG, all in good order, suitable for a fifteen foot head. Apply to Box 1002, Peterborough. L10

**Orillia House,**

ORILLIA.  
New and Commodious Brick Building; best north of Toronto; splendid sample rooms; centrally located; free bus. b20 JOHN KELLY, Proprietor.

**The Queen's Hotel,**

TORONTO, CANADA.  
McGAW & WINNETT, Proprietors. Patronized by Royalty and the best families. Prices graduated according to room. b20

**St. Lawrence Hall,**

PORT HOPE.  
Is noted for its superior home-like comforts—a well kept table, equalling the best hotels in Toronto, and large, well-furnished rooms. Good sample rooms on ground floor. Walton Street, Port Hope. b20 WM. MACKIE Proprietor.

**Caledonian Hotel,**

GRAVENHURST.  
JOHN SHARPE, Proprietor. This Hotel has been newly opened out, pleasantly situated on Main Street, within five minutes walk of Northern Railway station. Bar kept with best assorted Wines, Liquors and Cigars. Every attention paid to guests. Good Stabling. 1yt15

**St. Louis Hotel.**

THE RUSSELL HOTEL CO., Proprietors.  
WILLIS RUSSELL, Pres., Quebec.  
This hotel, which is unrivalled for size, style and locality in Quebec, is open throughout the year for pleasure and business travel. b18

**Queen's Hotel,**

BRACEBRIDGE.  
JOHN HIGGINS, Proprietor. The proprietor (late of Georgetown) having lately purchased the above hotel, will endeavor to make it one of the best houses in the District of Muskoka. Tourists and hunting parties will receive every possible attention. Free bus to and from steamboat wharf. Terms, \$1 per day. b20

**The American Hotel,**

BARRIE, ONT.  
Collier Street, Adjoining the Market.  
RATES REASONABLE, CENTRAL LOCATION,  
FREE BUS TO AND FROM ALL TRAINS.  
Every accommodation for Commercial and LUMBERMEN.  
W. D. McDONALD, Proprietor. L14

**Fraser's Hotel,**

GRAVENHURST, ONT.  
HENRY FRASER, proprietor, (successor to Dougland Brown.) Mr. Fraser having purchased and thoroughly renovated and refitted that old established hotel, so long and popularly kept and owned by Dougland Brown, in the Village of Gravenhurst, is now in a position to attend to the wants of the travelling and general public. Parties en route to the Muskoka District, will find "Fraser's" a comfortable stopping place. The Bar and Larder are well furnished. Convenient Sample Rooms for Commercial Men. Good stabling and attentive hostler. Free bus to and from trains and steamboats. b20

**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 1v

**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 21 x 25.

**DOUBLE OVEN STOVE**

The Double Oven has a top surface containing twelve 10-inch pot holes, with two ovens, each 10 x 21 x 25. 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, reliable, and will carry more weight than any recommendation of my own could do.

**The Best Stove I have ever Used.**

PETERBOROUGH, May 31, 1880.  
ADAM HALL, Esq., Peterborough. Dear Sir,—I have used your Wrought Iron Cooking Stove in our lumbering operations since its introduction here, and have no hesitation in saying that I prefer it to any other. For durability, economy and efficiency, where a large number of men are employed, it is the best stove I have ever used. You can, with confidence, offer it to hotels, boarding houses and lumbermen.  
Yours truly, THOS. GEO. HAZLITT.

**The Stove for Lumbermen.**

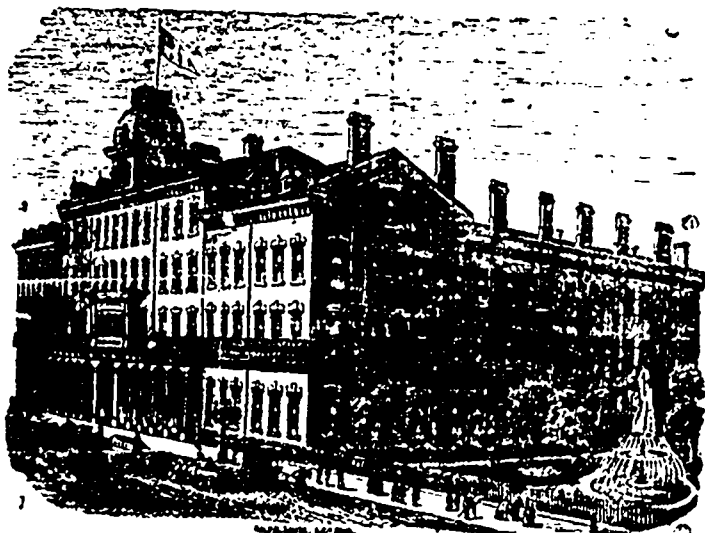
PETERBOROUGH, June 1st, 1880.  
ADAM HALL, Esq., Peterborough. My Dear Sir,—We have used your Wrought Iron Cooking Stove and find it is very satisfactory for lumber operations, especially so on drives. We can recommend it highly.  
Yours truly, IRWIN & BOYD,  
Gives the Greatest Satisfaction.

PETERBOROUGH, June 3rd, 1880.  
A. HALL, Peterborough. Dear Sir,—I have had the Wrought Iron Cook Stove, purchased from you, in constant use ever since last fall, and it gives the greatest satisfaction in every respect. I can recommend them highly to any one who is in the lumber business.  
Very truly yours, GEO. HILLIARD, M.P.

**EVERY STOVE GUARANTEED**

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

**ADAM HALL, Peterborough.**



**The QUEEN'S HOTEL, TORONTO, CANADA**

McGAW & WINNETT, Proprietors.

Patronized by Royalty and the best families. Prices graduated according to rooms. b20



# Chips.

When they build a new saw mill the first thing they do to popularize it is to send circulars around. That indicates business.

SOME days ago Messrs. Hamilton & Dunlop, of Brantford, made a shipment of native wines to San Francisco. These wines are the growth of the Via Villa Vineyard, and are becoming more popular as they are better known.

ROBERT GRIFFIN, for some time in the employ of Messrs. H. B. Rathbun & Son as book-keeper at Napanoc, was arrested in Montreal on the 30th ult., on the charge of misappropriating monies passing through his hands. The deficit so far as known at the time of his arrest, footed up some \$400.

It is an interesting circumstance, in connection with development of our manufactures, to learn that Messrs. Belding, Paul & Co., manufacturers of silk in Montreal, have brought to this country an experienced weaver from Coventry, the seat of silk weaving in England, and are beginning to make silk ribbons under his management.

THE Messrs. Shaw, the great American tanners, have bought the Foundry block, near Woodstock, N.B., containing 8,600 acres, as well as another block north of it, for \$30,000. They have bought this land on account of the hemlock trees which are growing on it. We understand that bark was lately worth on the cars in Massachusetts, \$12 per cord.—Capital.

THE pulp factory at Sherbrooke, of Messrs. Ferguson & Co., has met with marked success since its establishment, and is now running night and day, turning out thirty tons a week, nearly all of which goes to New England paper makers. Spruce lumber is used altogether for producing pulp, and the factory, which has 800 available horse-power, runs five "grinders" and three "wet machines."

A QUANTITY of worsted combing machinery is being put into D. McC & Co's factory at Guelph, which is to work on Canadian wools. These machines are very valuable and have been brought from Great Britain specially for manufacturing yarns of the Canadian long wool, which formerly had to be sent to the United States to be made up. In order to make room for the new machinery the offices of the firm have been removed to an adjoining building.

PROF. N. H. WINCHELL, state geologist of Minnesota, estimates the amount of pine lumber suitable for manufacturing, still standing in that state, at 5,700,000,000 feet. This includes the several Indian reservations, on which are many millions of feet of excellent pine, and a tract on the Big Fork river, whose waters are now drained into the Rainy Lake river, and it seems from the facts obtained, the 250,000,000 or 300,000,000 feet on that stream, Bowstring Lake and the tributaries thereto, may be floated down the Mississippi.—Lumber World.

MESSRS. A. W. OGILVIE & Co., of the Glenora Mills, Montreal, have just completed rebuilding their extensive mills on the Lachine Canal, and have adopted the new Hungarian Roller process in its entirety. The plans were made by Messrs. E. Pallis & Co., of Milwaukee, who have fitted out a large number of mills in the States, and the mill contains sixty-six of the new roller machines, with all the accompanying appurtenances, affording a capacity of 750 barrels a day. The Messrs. Ogilvie are erecting a mill at Winnipeg, intended to be a counterpart of the above.

THE business of the Grand Trunk Railway was never more active than now, especially the portion of its lines in Western Ontario. A Stratford paper of last week describes the situation as especially lively on Tuesday, which, it avers, was the heaviest day ever known on the road. In addition to the regular trains between Sarnia and Stratford, there were 19 special freight trains, the total number arriving at and leaving Stratford station during the 24 hours being 141, of which 27 were passenger trains. This averaged one for every 23 minutes, and there was not an hour's detention, a record unprecedented for a single track, and creditable to the staff who handled such a bulk of traffic so expeditiously.

## RE-SAWING LUMBER.

There is yet to be further improvement in the manufacture and distribution of lumber in this country, and there are some reasons for expecting it will come in the adoption of the English system of cutting timber into deals and the re-sawing nearer the point of consumption. While wood is so abundant and comparatively cheap as now, the present plan of cutting at the forest mills lumber of all the thicknesses desired in consumption will probably be continued. But when timber becomes scarcer and advances in price correspondingly, it will not do to waste one-fourth of the wood in cutting it into inch boards. Thinner saws will be required, saws cutting with greater regularity as to thickness and securing a surface that will not have to be cut away so much in planing. The circular saw, with its quarter inch set, its wasteful kirk and production of rough and furrowed surfaces, will be laid aside except for slabbing, and the gang saw alone be used in the forest mills for producing plank deals or cants. These will be transported to the lumber marts, or points of distribution, and re-sawed with the thinner and most perfect saws which can be produced. Every sixteenth of an inch saved in the width of the kerf saves one thousand feet of lumber in every sixteen sawed. Another reason which will demand the production at the forest mills of deals instead of lumber cut to the various thicknesses in use, when timber shall become more valuable, will be the saving in the cost of transportation. As lumber advances in price the economy of handling and transportation will be a matter requiring more consideration. Deals can be transported more cheaply than inch boards, for one reason because they can be handled with less labor. Another advantage in re-sawing would be that the necessity of keeping on hand larger stocks in order to have the necessary assortments would be reduced, as the dimensions needed could be cut from deals on hand. Re-sawing will produce smoother lumber, because thinner saws may be used and run at a greater speed. The change in the manner of cutting and distributing lumber may not be immediately at hand, but it will take not many years hence. It will, no doubt, come on gradually; but as the manufacture of lumber recedes from the means of cheap transportation by water and the railroads have to be depended on, the cutting of their lumber at the mills will gradually cease, except for near-by points.—Lumberman's Gazette.

## DIRECTIONS FOR THE USE OF BELTS.

The putting on of belts should be done by a person acquainted with the use of belting, and too much judgment cannot be exercised in this respect, as the wear of the belt depends considerably on the manner in which it is put on, therefore the following suggestions, if practiced, will be of much service to person, in this capacity. The butts to be joined together should be cut perfectly square with the belt, in order that one side of the band may not be drawn tighter than the other. For the joining of belts, good lace-leather, if properly used, being soft and pliable, will always give satisfaction. Where belts run vertically, they should always be drawn moderately tight, or the weight of the belt will not allow it to adhere closely to the lower pulley, but in all other cases they should be slack. In many instances the tearing out of lace holes is unjustly attributed to poor belting, when, in reality, the fault lies in having a belt too short, and trying to force it together by lacing, and the more leather has been stretched while being manufactured, the more liable it is to be complained of. All leather belting should occasionally be greased with the following mixture, or it may become dry and will not adhere to the pulleys: 1 gallon of neat's foot or tanner's oil, 1 gallon of tallow, 12 ounces of resin; dissolve by heating and mix well together. During the winter season an extra quantity of oil should be added to the mixture. To obtain the greatest amount of power from belts the pulleys should be covered with leather; this will allow the belts to be run very slack, and give 25 per cent. more wear. More power can be obtained from using the grain side of a belt to the pulley than from the flesh side, as the belt adheres more closely to the pulley; but there is this about it—the belt will not last half so long, for when

the grain, which is very thin, is worn off, the substance of the belt is gone, and it then quickly gives out; so that I would advise the more saving plan of obtaining power by driving with wider belts, and covering the pulleys with leather. Where belts are run in very damp places, or exposed to the weather, I would recommend the use of rubber belting; but for ordinary use it will not give the satisfaction which is so generally obtained from using oak leather belting, as it cannot be run on cone pulleys through forks or at half cross, and with fair usage would be worn out, while a leather belt was regularly performing the work allotted to it; for when the edge becomes worn, the belt soon gives out.—Van Riper.

## THE CROSS-CUT SAW.

Ten years' experience in the use of cross-cut saws has proved to me that I have been working under many disadvantages until recently. My wish is for all to know the great advantage of a plan which I pursue. Take a new saw that has never been set, place it between two boards cut to fit the saw, clamp it tight on a bench or vice; take an iron wedge, file one corner to suit the set of the tooth when finished, then take a small hammer, hold the wedges with the left hand, strike the tooth lightly with the hammer until at the right place; then turn the wedge on the opposite side, and on the next tooth and set in the same way; now then you reach the third and most important tooth in the saw; leave it perfectly straight; pass on to the fourth tooth and set as you did the first, turn the wedge, set the fifth the other way; leave the sixth straight, and so on till you finish. Now take your file, dress the two teeth as you do the common saw; the third file perfectly straight and square, leaving it about one-twentieth part of an inch shorter than the others. Continue in that way until you finish, and you will find that it will cut twice as fast as the old way practiced by most of the farmers.

## BLACK WALNUT TREES.

Eli Perkins, the great American delusionist, has struck a bonanza for lumbermen in Texas. Sim Graves, a native, has shown Eli a grove of black walnut trees, hand planted ten years ago, that have attained the respectable proportions of nine inches diameter, and which, he assured him, would be nineteen inches through within twenty years from the date of planting. Sim and Eli then sat down and figured out the value of this grove, which contains ten acres. Each acre contains two hundred trees, or the whole patch two thousand. Sim says these trees will yield him four hundred bushels of nuts this year, which at \$2.50 per bushel will give him \$1,000, and as this yield will increase instead of decrease, he reckons his future income at less than this sum per annum until the trees are twenty years of age. When that time arrives, Sim expects to sell his grove for \$25 per tree or \$50,000. Eli concludes his narrative by advising the public to buy land at \$25 per acre and settle down as black walnut farmers.—Lumber World.

## Usual Excellent Style.

Messrs. Toker & Co., Peterborough, Ont., have become proprietors of THE CANADA LUMBERMAN, the first nine numbers of which were published in Toronto by Mr. Alexander Bogg. THE LUMBERMAN will be purely a trade organ, and is the only newspaper published in Canada devoted to the interests of the lumber and timber interests of the Dominion. It will contain trade statistics, the markets, articles bearing on the important interests it represents, and must prove itself a most excellent and trustworthy medium through which lumbermen, millers, miners, etc., may elucidate and set forth their ideas, either individually or collectively, for the benefit of the trade at large. It is a large semi-monthly 16-page newspaper, and is printed from fine clear type, and the workmanship is in Messrs. Toker & Co's usual excellent style. The subscription price is only \$2 per annum.—Printers' Miscellany, St. John, N.B.

Do NOT DRUG THE SYSTEM with nauseous purgatives that only debilitate. Burdock Blood Bitters is nature's own Cathartic, it acts at once upon the bowels, the skin, the liver and the kidneys, arousing all the secretions to a healthy action. It purifies the blood and cures all humors, even the worst form of Scrofula, and tones up the Nervous and Debilitated.

## ARTIFICIAL SEASONING OF LUMBER.

Van Nostrand's Engineering Magazine says on this important subject: To prepare timber for the sounding boards of musical instruments, so that they are not influenced by vibrations in temperature and atmospheric changes generally, Mr. C. Reno, pianoforte manufacturer, of Stettin, Germany, has devised a plan by which he makes use of the property of oxygen, particularly of that ozonized by the electric current, to artificially season the timber. The first impulse to experiments being carried out in this direction was given by the well-known fact that wood, which has been seasoned for years, is much more suitable for the manufacture of musical instruments than if used soon after it is thoroughly dried only. Mr. Reno claims that instruments made of wood which has been treated by oxygen possesses a remarkably fine tone, which not only does not decrease with age, but as far as experience teaches improves with age as does the tone of some famous old violins by Italian masters. We are further told that the sounding boards made of wood prepared in this manner have the quality of retaining the sound longer and more powerfully. A number of pianos manufactured at Mr. Reno's works, and exported to the tropics several years ago, have stood exceedingly well, and seem in no way affected by the climatic dangers they are exposed to. While other methods of impregnating wood with chemicals generally have a deteriorating influence on the wood fibers, timber prepared by this method, which is really an artificial agency, becomes harder and stronger. The process is, we understand, regularly carried on at Mr. Reno's works, and the apparatus consists of a hermetically closed boiler or tank, in which the wood to be treated by the process is placed on iron gratings; in a rotator, placed by the side of the boiler and connected to it by a pipe with stop valve. Provision is made in the boiler to ozonize the oxygen by means of an electric current, and the boiler is then gently fired and kept hot for forty-eight or fifty hours, after which time the process of preservation of wood is complete.

## SUMMER DRINKS.

The London Chemist and Druggist gives the following receipts for these seasonable beverages:—

### (1) Ginger Beer.

- Brown sugar . . . . . 2 lbs.
- Boiling water . . . . . 2 galls.
- Cream of tartar . . . . . 1 oz.
- Ginger bruised . . . . . 2 oz.

Infuse the ginger in the boiling water, add the sugar and cream of tartar; when lukewarm, strain, then add one half pint good yeast. Let it stand all night; then bottle. If desired, a lemon may be added, and it may be clarified by the white of one egg.

### (2) Lemon Beer.

- Sugar . . . . . 1 pound.
- Boiling water . . . . . 1 gall.
- Lemon, sliced . . . . . 1.
- Ginger, bruised . . . . . 1 oz.
- Yeast . . . . . 1 teacupful.

Let it stand 12 to 20 hours, after which it may be bottled.

### (3) Hop Beer.

- Sugar . . . . . 4 lbs.
- Hops . . . . . 6 oz.
- Water . . . . . q. s.
- Ginger, bruised . . . . . 4 oz.

Boil the hops three hours with 5 quarts of water, then strain; add 5 more quarts of water and the ginger, boil a little longer, again strain, add the sugar, and when lukewarm add one pint of yeast. After 24 hours it will be ready for bottling.

### (4) Spruce Beer.

- Hops . . . . . 2 oz.
- Sassafras, in chips . . . . . 2 oz.
- Water . . . . . 10 galls.

Boil half an hour, strain, and add:—

- Brown sugar . . . . . 7 lbs.
- Essence of spruce . . . . . 1 oz.
- Essence of ginger . . . . . 1 oz.
- Pimento, ground . . . . . 1/2 oz.

Put the whole in a cask, and let cool; then add one half pint of yeast, let stand 24 hours, fine and bottle it.

BASSWOOD is scarce in Chicago just now, and dealers state that they can readily place all the seasoned they can get hold of without meeting the demand.

ST. JOHN, N.B.

From Our Own Correspondent.

GENERAL REMARKS.—As usual at this season of the year, we have very little for special remark in regard to the progress of our lumber trade. Under those circumstances a few observations with reference to the character of our wood trade generally may not be altogether out of place.

As will be soon by reference to our periodical report of shipments, Europe (and especially Great Britain) is the principal wood market of this port; indeed the same may be said of the Province generally; our wood exports thence consisting very largely of spruce deals.

The lumber trade between this port and the United States is not altogether Canadian. It is almost exclusively in the hands of people from the States, who procure their logs from that portion of the State of Maine watered by the River St. John and tributaries, float them to St. John, where the lumber is manufactured and shipped to the United States as American lumber, and, consequently, free of duty, thus possessing a decided advantage over Canadian lumber, tending to the exclusion of the latter from the American market. There are some ten saw mills in this city and vicinity engaged in this business. The lumber is mostly pine, cut into boards and plank from one to two inches in thickness.

Our shipments to the West Indies, consisting of pine boards chiefly, are comparatively small, and mostly in the winter season.

FRIGHTS.—The freight market is extremely dull and rates very low. For Liverpool the latest quotation is 52/6.

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

Table with 2 columns: Destination and Amount. Includes Europe (12,607,000 Sup. ft.), United States (2,875,000), and West Indies (180,000).

VESSELS IN PORT.—The following is a list of square-rigged vessels in port with their tonnage and destination:—

- List of vessels including Nettle Murphy, William, Douglas Campbell, Granite City, Effort, Africa, Wanderer, Iluano, Blanco, Josie Troop, Venus, Cecilia, Nylghau, Liffey, Charles, L. H. D'Veber, John Murphy, Bomto, Broderine, Taganrog, Loining, E. W. Gale, Revolving Light, Rebus, Mark Twain, Moss Glen, Varhjug, Acton, New City, Finsbury, Astrayana, Arkle, Wacissa, Zebina Goudy, Cld, Ilawthorne, Durty Miller, Fidella, Nellie Moody, Endrick, Navigator, Wearnmouth, Charles H. Kenney, Stirlingshire, Ilabor, Jennie Parker.

ZOPESA.—A healthy man never thinks of his stomach. The dyspeptic thinks of nothing else. Indigestion is a constant reminder. The wise man who finds himself suffering will spend a few cents for a bottle of Zopesa, from Bra. U, the new and remarkable compound for cleansing and toning the system, for aiding the Digestive apparatus and the Liver to properly perform their duties in assimilating food. Get a 10 cent sample of Zopesa, the new remedy, of your druggist. A few doses will surprise you.

SALE BY TENDER OF EXTENSIVE STEAM Saw-Milling Property

AT Parry Harbour, Georgian Bay, and Valuable Timber Limits in the Parry Sound District.

The SAW-MILL is complete in its appointment, and has a cutting capacity of 90,000 to 100,000 feet per day of twelve hours. The LIMITS cover an area of 22 square miles in the Townships of Monticello, Humphrey, Christie, Ferguson, Hagerman, McKellar, Spence, and Shawanaga, besides the purchased rights to cut the timber from numerous lots in the same Townships, and contain a large quantity of standing pine. The whole establishment is in complete condition and ready for operation, and is excellently situated for the manufacture, sale and shipment of timber. Tenders for the whole property, including plant, will be received until the 20th August next, addressed to the General Manager, Ontario Bank, Toronto, by whom terms of payment and any further information will be furnished on application. No tender will be accepted unless satisfactory to the vendors. 4617

IRWIN & BOYD

Commission Lumber Dealers,

FORWARDERS,

Shipping & General Agents

PORT HOPE.

LUMBERMEN advertisement featuring an image of a watch and text: 'will save money by going direct or sending to F. CRUMPTON, 83 King St. East, Toronto, for their Watches and Jewellery, or Silverware and Clocks, etc. If you cannot come yourselves send your orders and I will guarantee just as good satisfaction as by a personal selection. Goods guaranteed exactly as represented or your money refunded. Watch and Jewellery repairing and manufacturing by competent workmen at reasonable prices. We make a specialty of HEAVY CASED WATCHES suitable for Lumbermen. Prices cheerfully furnished on application. Remember the address, F. CRUMPTON, 83 King St. East, TORONTO.'



Department of the Interior,

OTTAWA, 25th May, 1881.

WHEREAS circumstances have rendered it expedient to effect certain changes in the policy of the Government respecting the administration of Dominion lands, public notice is hereby given:

- 1. The Regulations of the 14th October, 1879, were rescinded by order of His Excellency the Governor General in Council, on the 20th day of May, instant, and the following Regulations for the disposal of agricultural lands substituted therefor:
2. The even-numbered sections within the Canadian Pacific Railway Belt that is to say, lying within 24 miles on each side of the line of the said Railway, excepting those which may be required for wood lots in connection with settlers on prairie lands within the said belt, or which may be otherwise specially dealt with by the Governor in Council, shall be held exclusively for homesteads and pre-emptions. The odd-numbered sections within the said belt are Canadian Pacific Railway Lands, and can only be acquired from the Company.
3. The pre-emptions entered within the said belt of 24 miles on each side of the Canadian Pacific Railway, up to and including the 31st day of December next, shall be disposed of at the rate of \$2.50 per acre, four-tenths of the purchase money, with interest on the latter at the rate of six per cent. per annum, to be paid at the end of three years from the date of entry, the remainder to be paid in six equal instalments annually from and after the said date, with interest at the rate above mentioned on such portions of the purchase money as may from time to time remain unpaid, to be paid with each instalment.
4. From and after the 31st day of December next, the price shall remain the same—that is \$2.50 per acre—for pre-emptions within the said belt, or within the corresponding belt of any branch line of the said Railway, but shall be paid in one sum at the end of three years, or at such earlier period as the claimant may have acquired a title to his homestead quarter-section.
5. Dominion Lands, the property of the Government, within 24 miles of any projected line of railway recognized by the Minister of Railways, and of which he has given notice in the Official Gazette, as being a projected line of Railway, shall be dealt with as to price and terms, as follows:—The pre-emptions shall be sold at the same price and on the same terms as fixed in the next preceding paragraph, and the odd-numbered sections shall be sold at \$2.50 per acre, payable in cash.
6. In all townships open for sale and settlement within Manitoba or the North-West Territories, outside of the said Canadian Pacific Railway Belt, the even-numbered sections, except in the cases provided for in clause two of these Regulations, shall be held exclusively for homestead and pre-emption, and the odd-numbered sections for sale as public lands.
7. The lands described as public lands shall be sold at the uniform price of \$2 per acre, cash, excepting in special cases where the Minister of the Interior, under the provisions of section 4 of the amendment to the Dominion Lands Act passed at the last session of Parliament, may deem it expedient to withdraw certain farming lands from ordinary sale and settlement, and put them up for sale at public auction to the highest bidder, in which event such lands shall be put up at said price of \$2 per acre.
8. Pre-emptions outside of the Canadian Pacific Railway Belt shall be sold at the uniform price of \$2 per acre, to be paid in one sum at the end of three years from the date of entry, or at such earlier period as the claimant may acquire a title to his homestead quarter-section.
9. Exceptions shall be made to the provisions of clause 7, in so far as relates to lands in the Province of Manitoba or the North-West Territories, lying to the north of the belt containing the Pacific Railway lands, wherein a person being an actual settler on an odd-numbered section shall have the privilege of purchasing the same at the price of \$1.25 per acre, cash; but no Patent shall be issued for such land until after three years of actual residence upon the same.
10. The price and terms of payment of odd-numbered sections and pre-emptions, above set forth, shall not apply to persons who have settled in any one of the several belts described in the said Regulations of the 14th October, 1879, hereby rescinded, but who have obtained entries for their lands, and who may establish a right to purchase such odd-numbered sections or pre-emptions, as the case may be, at the price and on the terms respectively fixed for the same by the said Regulations.
11. The system of wood lots in prairie townships shall be continued—that is to say, homestead settlers having no timber on their own lands, shall be permitted to purchase wood lots in area not exceeding 20 acres each, at a uniform rate of \$5 per acre, to be paid in cash.
12. The provision in the next preceding paragraph shall apply also to settlers on prairie sections bought from the Canadian Pacific Railway Company, in cases where the only wood lands available have been laid out on even-numbered sections, provided the Railway Company agree to reciprocate where the only timber in the locality may be found on their lands.
13. With a view to encouraging settlement by cheapening the cost of building material, the Government reserves the right to grant licenses from time to time, under and in accordance with the provisions of the "Dominion Lands Act" to cut merchantable timber on any lands owned by it within surveyed townships; and settlement upon, or sale of any lands covered by such license, shall, for the time being, be subject to the operation of the same.
14. In any case where a company or individual applies for lands to colonize, and is willing to expend capital to contribute towards the construction of facilities for communication between such lands and existing settlements, and the Government is satisfied of the good faith and ability of such company or individual to carry out such undertaking, the odd-numbered sections in the case of lands outside of the Canadian Pacific Railway Belt, or of the Belt of any branch line or lines of the same, may be sold to such company or individual at half price, or \$1 per acre, in cash. In case the lands applied for be situated within the Canadian Pacific Railway Belt, the same principle shall apply so far as one-half of each even-numbered section is concerned—that is to say, the one-half of each even-numbered section may be sold to the

company or individual at the price of \$1.25 per acre to be paid in cash. The company or individual will further be protected up to the extent of \$500, with six per cent. interest thereon till paid, in the case of advances made to place families on homesteads, under the provisions of section 10 of the amendments to the Dominion Lands Act hereinbefore mentioned.

In every such transaction, it shall be absolutely conditional:

- (a) That the company or individual, as the case may be, shall, in case of lands outside of the said Canadian Pacific Railway Belt, within three years of the date of the agreement with the Government, place two settlers on each of the odd-numbered sections, and also two on homesteads on each of the even-numbered sections, in accordance with the scheme of colonization.
(b) That should the land applied for be situated within the Canadian Pacific Railway Belt, the company or individual shall, within three years of the date of the agreement with the Government, place two settlers on the half of each even-numbered section purchased under the provision contained in paragraph 14, also, c, and also one settler upon each of the two quarter sections remaining available for homesteads in such section.
(c) That on the promoters failing within the period fixed, to place the prescribed number of settlers, the Governor in Council may cancel the sale and the privilege of colonization, and resume possession of the lands not settled, or charge the full price of \$2 per acre, or \$2.50 per acre, as the case may be, for such lands, as may be deemed expedient.
(d) That it be distinctly understood that this policy shall not only apply to schemes for colonization of the public lands by Emigrants from Great Britain or the European Continent.

Pasture Lands

16. The policy set forth as follows shall govern applications for lands for grazing purposes, and previous to entertaining any application, the Minister of the Interior shall satisfy himself of the good faith and ability of the applicant to carry out the undertaking involved in such application.

17. From time to time, as may be deemed expedient, leases of such Townships, or portions of Townships, as may be available for grazing purposes, shall be put up at auction at an upset price to be fixed by the Minister of the Interior and sold to the highest bidder the premium for such leases to be paid in cash at the time of the sale.

18. Such leases shall be for a period of twenty-one years, and in accordance otherwise with the provisions of section eight of the Amendment to the Dominion Lands Act passed at the last session of Parliament, hereinbefore mentioned.

19. In all cases the area included in a lease shall be in proportion to the quantity of the live stock kept thereon, at the rate of ten acres of land to one head of stock; and the failure in any case of the lessee to place the requisite stock upon the land within three years from the granting of the lease, or in subsequent years, by maintaining the proper ratio of stock to the area of the leasehold, shall justify the Governor in Council in cancelling such lease, or in diminishing proportionately the area contained therein.

20. On placing the required proportion of stock within the limits of the leasehold, the lessee shall have the privilege of purchasing, and receiving a patent for, a quantity of land covered by such lease, on which to construct the buildings necessary in connection therewith, not to exceed five per cent. of the area of the leasehold, which latter shall in no single case exceed 100,000 acres.

21. The rental for a leasehold shall in all cases be at the rate of \$10 per annum for each thousand acres included therein, and the price of the land which may be purchased for the cattle station referred to in the next preceding paragraph, shall be \$1.25 per acre, payable in cash.

Payments for Lands.

- 22. Payments for public lands and also for pre-emptions made in cash, or in scrip, or in police or military bounty warrants, at the option of the purchaser.
23. The above provisions shall not apply to lands valuable for town plots, or to coal or other mineral lands, or to stone or marble quarries, or to lands having water power thereon; and further shall not, of course, affect Sections 11 and 20 in each Township, which are Hudson's Bay Company's lands.

J. S. DENNIS, Deputy Minister of the Interior. LINDSAY RUSSELL, Surveyor-General. 3617

Advertisement for FLEMING & SON, featuring an image of a camera and text: 'FLEMING & SON, ELECTRO-STEREOTYPE, 24 COLBURN ST., TORONTO.'

We have added to our plant all the latest improved machinery for Electro and Stereotyping, and the manufacture of Printers Furniture, facilities for executing work which no other establishment in the Dominion possesses, and not excelled by any on the continent. A large assortment of various cuts constantly on hand. FLEMING & SON, 24 Colburne St., Toronto.

Advertisement for TRUSSES, featuring an image of a truss and text: 'TRUSSES. CLUTTER PATENT SPIRIT RUSS all attachments improved. No more backache, all on solid brass, costing less on rupture and human frame free. Send address in full post card. Best true information about rupture and deformities. CHAS. CLUTTER, Surgical Machine, 118 1/2 King Street west, Toronto. 1213



of the mills are under contract for the product of all the suitable logs they are in any way likely to secure. Full rates are in consequence asked and the bids range well up, also, as buyers are in some cases quite anxious. On ordinary sizes the tone has been quite steady also. Some pretty heavy arrivals were of late reported, but the bulk appears to have been engaged. May be quoted at \$14.00@16.00 on randoms; and \$16.00@18.00 for specials.

White pine continues firm in price and has a good sale on all regular outlets. Large amounts have gone abroad this season, but dealers who make the foreign trade a specialty, seem confident that shippers may still be depended upon as good customers. Full home wants are assured and generally the market is in excellent shape. We quote \$17.00@19.00 per M. for West India shipping boards; \$24.50@26.00 for South American do.; \$16.00@16.50 for box board; \$17.00@17.50 for do. wide and sound do.

Yellow pine has a first-rate market still, and on all grades showing merit there is a firm tone at full prices. The local consumption is becoming larger, and, in some cases, has run ahead of deliveries, compelling contractors to seek supplies from yards while awaiting the arrival of detained cargoes. Quite a number of shipping orders are in hand, but negotiations on these prove a trifle slow. We quote random cargoes at about \$24.00@26.00 per M.; ordered cargoes, \$26.00@28.00 do.; green flooring boards, \$24.50@25.50 do.; and dry do. do., \$27.00@29.00. Cargoes at the South, \$15.00@19.00 per M. for rough, and \$20.00@24.00 for dressed.

Hardwoods do not accumulate. Supplies come to hand to some extent, but quickly disappear, and buyers find it quite as difficult as ever to hunt up an attractive assortment. Prices naturally are quite firm all around. We quote at wholesale rates by carload about as follows: Walnut, \$77@85 per M.; ash, \$35@38 do.; oak, \$40@45 do.; maple, \$30@35 do.; chestnut, 1st and 2nd, \$30@35; do. do. culls, \$18@20 do.; cherry, \$50@55 do.; white wood, 1/2 and 3/4 inch, \$25@27.50, and 1/2 inch, \$23@25 do.; hickory, \$24@25 do., for Western, and \$65@75 for good nearby stock.

Shingles show no great variation. Demand is fair, the supply under very good control, and holders generally quite firm in asking former rates. Machine dressed cedar shingles quoted as follows: For 30-inch, \$16@22.25 for A and \$27.75@33.25 for No. 1; for 24-inch, \$6.50@16 for A and \$16.75@23 for No. 1; for 20-inch, \$5@10.50 for A and \$11.25@11.75 for No. 1.

OSWEGO, N.Y.

From Our Own Correspondent.

OSWEGO, N.Y., July 9, 1881.—There has been no particular change in this market since our last, the receipts have been about as usual at this season of the year, always being somewhat affected by Dominion and Fourth of July holidays. The quantity received for shipment has not been as large as during the early part of June, more being held for distribution here. The yards are well stocked, though a good deal of it is of this year's cut, and must be held a while before it can be disposed of. No change in lake freights. There has been a decline in canal rates of ten cents. Current rates are: \$1.50 to Albany, and \$2.20 to New York.

Receipts to date from opening of navigation: 1880.....63 millions. 1881.....69

Table with 2 columns: Item description and Price. Includes items like Three uppers, Pickings, Fine common and dressing, etc.

"WHERE HAVE YOU BEEN FOR A WEEK BACK?" enquired a man of his neighbor; "I have not a weak back," retorted he, "you misunderstand me," remarked his friend; "but if you ever get a weak back try Burdock Blood Bitters. It cures all debility arising from disordered Kidneys, Liver or Blood, and is the best purifying tonic in the world. All medicine dealers supply Sample Bottles at 10 Cents; Regular Size \$1.

ALBANY.

This is "Fourth of July" week when the district expects a quiet market. It has not been disappointed, for no large buyers have shown themselves since our last report. The receipts of lumber are free, the work which ended with 30th June bringing forward the largest quantity of any week this season; still we are much short of what we had received to date a year ago. Prices are without change and steadily held.

Hardwoods are in steady demand and unchanged in price.

Coarse lumber comes forward slowly; the mills are not running to their capacity for want of a sufficient supply of water; the demand is good and prices steadily held.

The receipts of lumber by lake at Buffalo for the week ending July 4th were 8,450,000 feet and by rail—cars. The receipts by lake at Oswego for the week were 4,537,000.

The receipts by canal at Albany from the opening of navigation to July 1st were:

Table with 4 columns: Boards and Shingles, M. Timber, Staves, Scantling, ft. Includes data for 1881 and 1880.

Freights from Oswego to Albany, \$1.60@1.65.

From Ottawa to Albany, by boats, \$3.00@3.50

per M. feet.—Argus,

River freights are:—

Table with 2 columns: Destination and Price. Includes New York, Bridgeport, New Haven, etc.

Quotations at the yards are as follows:—

Large table with 2 columns: Lumber type and Price. Includes Pine, Spruce, Hemlock, etc.

SAGINAW VALLEY.

The Lumberman's Gazette says: Another week of great activity in the lumber market has passed, in which a large quantity of stock has changed hands at good figures. Prices for choice lumber are very firm, sales having been made at \$3, \$16 and \$38, and \$8, \$16 and \$40, and in one instance a manufacturer named \$10, \$20 and \$40, as his figures for an extra choice lot. Among other sales we note 1,300,000 feet strips at \$6.50, \$13 and \$30, 300,000 feet strips at \$4.50 and \$13, 200,000 feet strips at \$9, 100,000 feet common strips at \$6.50, \$13 and \$30, 1,500,000 feet at \$7, \$14 and \$35, and 5,500,000 feet on market rates. There have been more lumber buyers in the market the past week than usual, the reduction in the cost of transportation seeming to have a favorable effect on the market.

Shingles are in good request at \$1.90@2.10 for clear laths and \$2.90@3.10 for XXX.

The total shipment of lumber, lath and shingles from the river for the season to date, were as follows:

Table with 2 columns: Item and Quantity. Includes Lumber, Shingles, Lath, Hoops.

The aggregate of lumber shipped last year to

July 1, was 273,408,000 feet, and 1879, 195,714,811 feet. The shipments are fifty millions short of what they were last year at this date. The shingle shipments are about the same as last year, but only about one half what they were in 1870.

MINNEAPOLIS.

The Mississippi Valley Lumberman of the 8th inst., says: The condition of the lumber business is all that any one anticipated could be at the opening of the season. There has been a steady advancement in values since the first day of January and the tendency is to still better figures. It is not an over estimate to say that emigration into the Missouri Valley and the country beyond (including Dakota) during the next two years will absorb five hundred million feet of lumber, which amount is to be added to that required in the west heretofore, to say nothing of the emigration into the Mississippi Valley. The Lake Michigan region will necessarily have to furnish a portion of the amount required, because there is not lumber enough cut on the waters of the Mississippi river to supply the country west of it. The advance in lumber during the past ten days at the several points along the river from St. Louis to Minneapolis has amounted to about one dollar per thousand on the leading qualities.

BOSTON.

There is still a very good distribution, although in some instances the intervention of a holiday has affected trade slightly, but the falling off is counter-balanced by the light receipts of the week. Prices remain very firm. Dimension stuff and long timber are very scarce, and in some cases are held rather above the general market, and from present indications will probably so continue. As a general rule the better kinds of lumber are stiff, and sales have been made at an advance over list prices. Ash is in pretty good supply and prices are not so firm, although dealers anticipate a speedy reaction as soon as this surplus stock is worked off. The following are car load quotations:

CANADA PINE.

Table with 2 columns: Lumber type and Price. Includes Selects, Dressing, Shelving, etc.

TONAWANDA.

The Northwestern Lumberman, under date of July 5th, says: The market here has had a tendency to dullness the past week, owing to public excitement in regard to the President's assassination, public holiday, etc., all of which have somewhat broken in on the general activity and routine. Prices have suffered no change. Lake freights are quoted to-day at \$2.25 from Bay City, and dealers and shippers are confidently looking forward to that figure as the settled price for the season.

CARGO LOTS—MICHIGAN INSPECTION.

Table with 2 columns: Item and Price. Includes Three uppers, Common, Culls.

The Grease Tree.

It is said that large forests of the grease tree of China are to be found there, and they form the source of a considerable local traffic. This tree not very long ago was imported into India, and it is said that the experiment of cultivating it there has proved quite successful. In the Punjab and northwestern provinces generally it grows as rapidly and as vigorously as in the native soil, and there are already thousands of trees on the government plantations yielding tons of seeds, admirably adapted to a variety of commercial purposes. Dr. Jameson, a chemist in the Punjab, has prepared a quantity of grease from this tree, and has forwarded on trial a portion of it to the Punjab railway to have its qualities tested in a practical manner as lubricating matter for those parts of the machinery constantly exposed to friction. The grease thus obtained forms an excellent tallow, burning with a clear, brilliant and, what is infinitely more to the purpose, a white light, and at the same time emitting not a trace of any unpleasant odor or of the ordinary disagreeable accompaniments of combustion.

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.

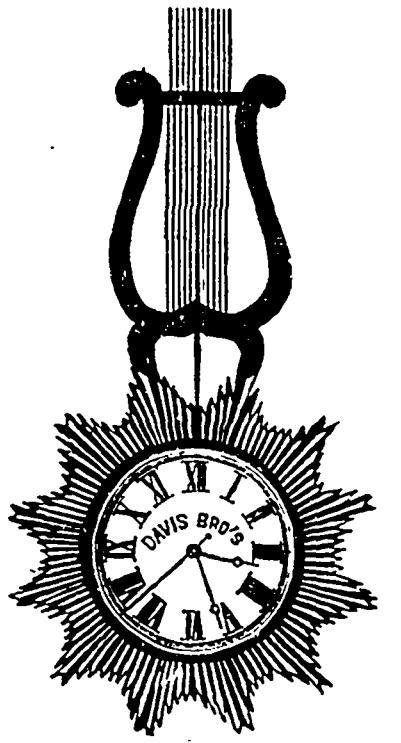
Plans and Specifications on application.

The Walkerville Foundry

MACHINE WORKS.

Walkerville, Ont., June 1881.

SUN CLOCK



IF YOU WANT A GOOD RELIABLE

WATCH

At a REASONABLE PRICE, call at

DAVIS BROS.

130 Young Street, Toronto.

N.B.—Repairing Promptly Attended to.

# 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 given the best of satisfaction, as will be seen by the following testimonials:—

GRAVENHURST, August 20th, 1880.

WM. HAMILTON, Esq., Peterborough.

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

Yours respectfully,

WILLIAM TAIT,  
Lumberman, Gravenhurst.

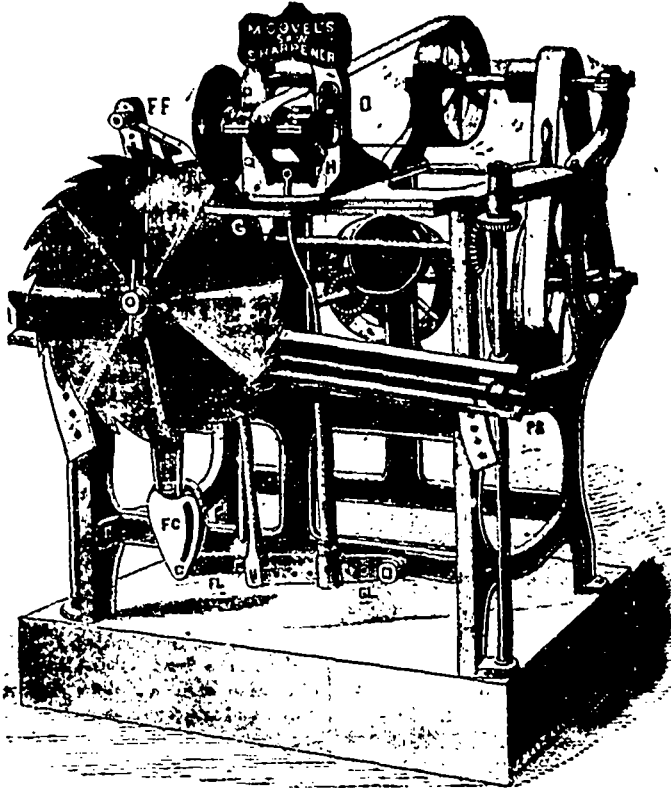
Toronto, August 11th, 1880.

WM. HAMILTON, Peterborough, Ont.

DEAR SIR— The Steam Feed you put in is working splendidly.

Yours, &c.,

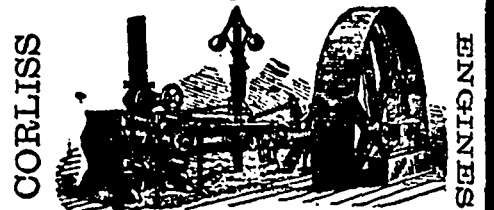
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I am also manufacturing Saw Mill Machinery, for all sizes of Gang or Circular Mills, Span or Double Circular for Slabbing Small Logs. My Patent Jack Chain for drawing logs into Saw Mills, acknowledged by all to be the Cheapest and best ever got up;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

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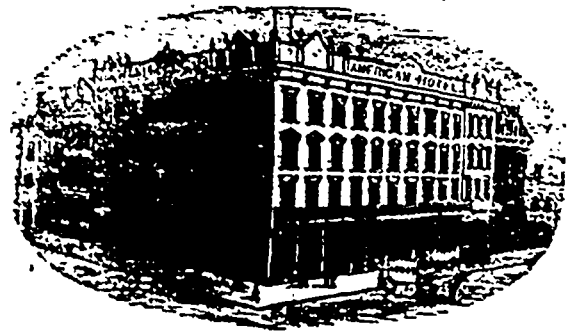
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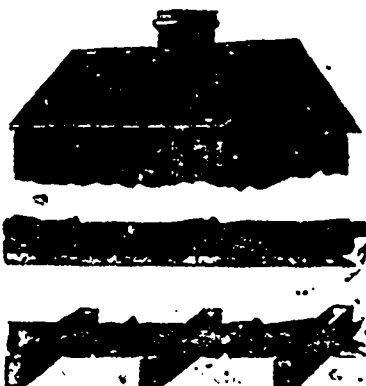
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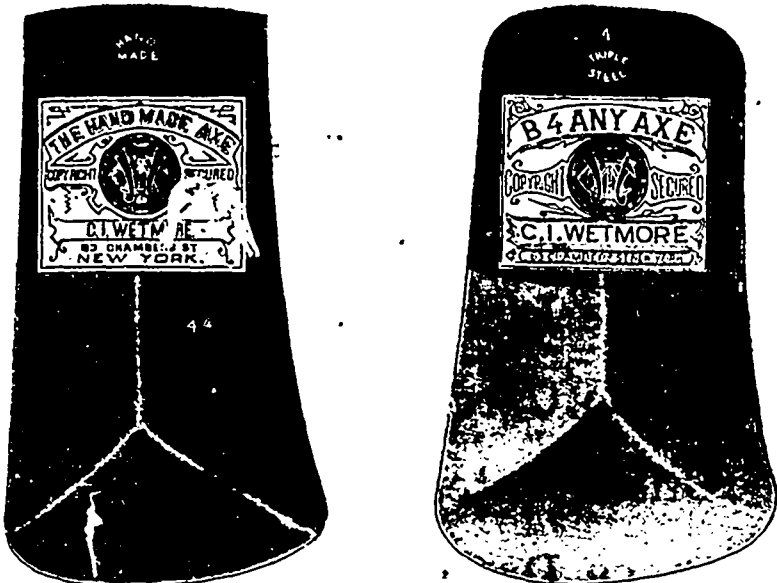
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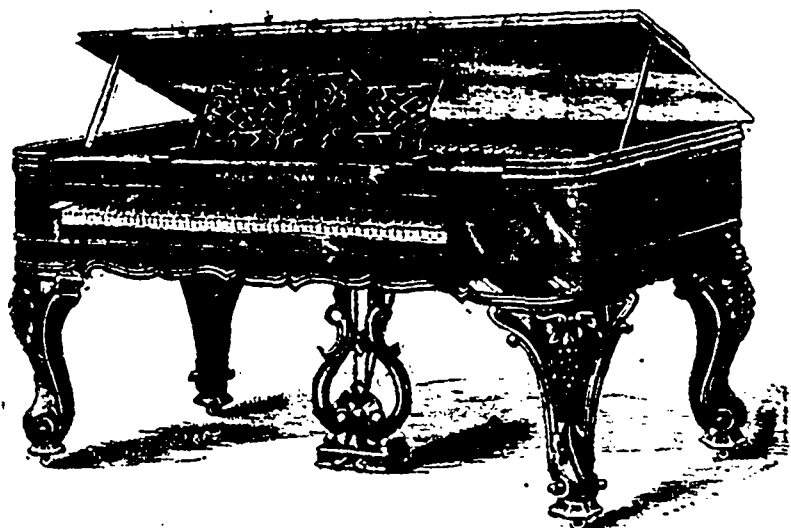


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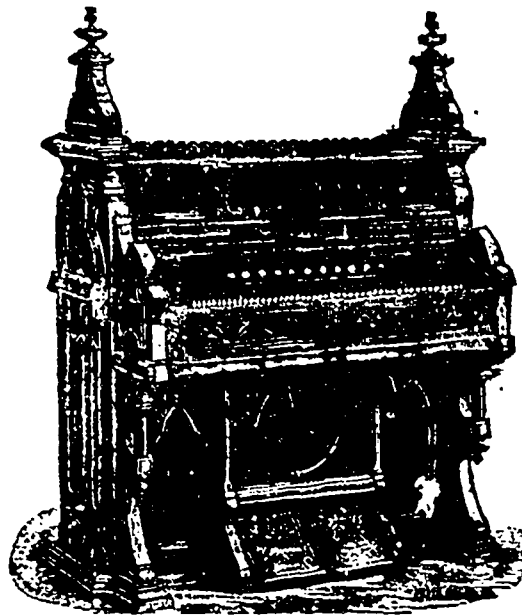
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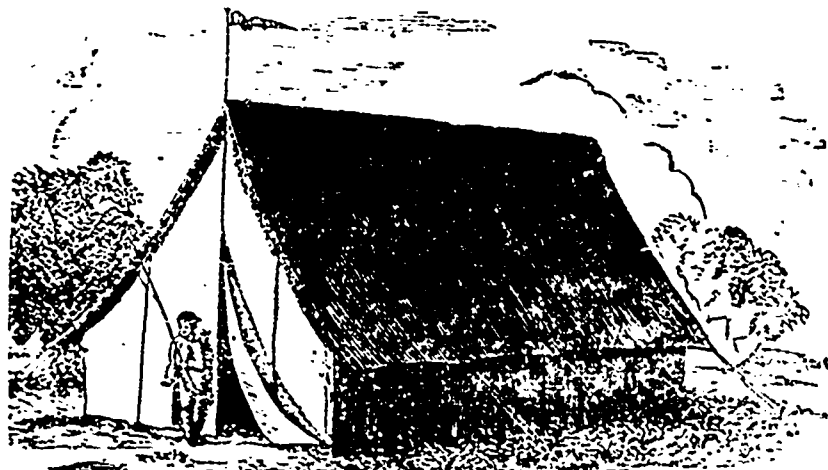
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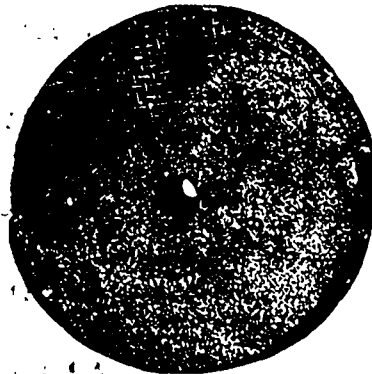
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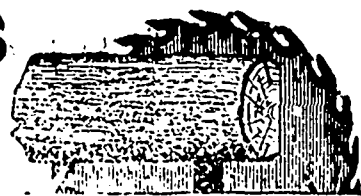
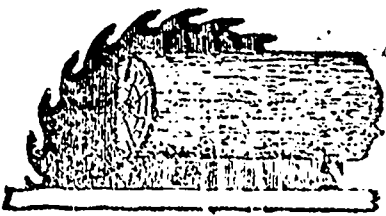
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The principal sizes are:

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

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 $\frac{1}{2}$ . 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 33 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.

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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 especially suited to those practical and experienced Sawyers who know how to grind with a light touch, and who want a free cutting wheel that will not create much heat.

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