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PUBLISHED
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VOL. 1.

PETERBOROUGH, ONT., APRIL 15, 1881.

NO. 12.

FORESTRY AND ARBORICULTURE.

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

Economic Uses of Woods.

While pine has, in everybody's mind, a certain recognized market value, other woods are often regarded, or at all events treated, as though they were all but worthless, or, if marketed, handled and disposed of with little practical intelligence. Since the sittings for taking oral evidence closed, the Commissioners—impressed with the importance of the subject—have put themselves in communication with Messrs. John Oliver & Co., of Toronto, a firm referred to by Mr. Hay in his evidence as large dealers in hardwood lumber. Messrs. Oliver & Co. have been good enough to supply the Commissioners with a considerable amount of additional information, and their statement will be referred to in the Report.

The value of timber in an economical sense, must of course depend on the purposes to which its several varieties can be profitably adapted. The principal uses, in general terms, of Canadian forest woods, exclusive of pine, are as follows:—

THE ELM.—"Rock Elm," says Mr. Hay, "we don't use except for building purposes. Soft elm makes a better seat for chairs than basswood." Carriage making, heads of barrels, and hubs of waggons, and agricultural implements, are also mentioned as utilizing elm in considerable quantities. Other classes of elm are in limited demand, but chiefly used for the manufacture of common furniture.

THE ASH.—Of the white ash Mr. Hay says: "White ash is a very valuable wood, and makes excellent bedroom furniture. It may be used for house fittings. A good many offices are now fitted up with hardwood, and also railway carriages. Ash is used largely by carriage builders. There is no wood will stand like ash in that respect; it is next to mahogany. It is a shame to see our valuable wood cut down and wasted as it is and has been."

The ash is now being used to a very considerable extent in the construction of the interiors of railway passenger cars. Bent stuff for tools, agricultural implements, hay-forks, hoo and broom handles are also manufactured from ash. The use of ash, for the internal fittings of buildings, alluded to by Mr. Hay, as practicable, has according to some other reports been pretty extensively adopted. Mr. Beadle, referring to his own experience, says:—

"When building my own house I found I could obtain chestnut and ash wood as cheap as, or cheaper than first-class pine, and I used them. I think they are much more handsome than painted wood work."

Black Ash is more plentiful, but its uses are limited.

THE MAPLE.—Mr. Hay says of the use of

maple in his business (furniture manufacturing): "You can get any quantity of the hard maple, but it is the soft maple that is the most valuable. It is the more valuable for furniture as it stands better and does not warp. Soft maple is not so plentiful as hard."

In the United Counties, soft maple is sometimes used for house-flooring; it is also in some demand by agricultural implement manufacturers.

Mr. W. C. Caldwell, M.P.P., of Lanark Village, says:—"Hard maple is used for wagon axletrees, as well as several other purposes. I had an order for some from Manitoba, but could not supply it in time." Maple has also, according to one report, been used for paper pulp making.

THE OAK.—Oak is used for a variety of purposes, the manufacture of barrel staves being one of the largest causes of demand for this wood. It is also used to a considerable extent in agricultural implement manufactories, and for ship-building. "Of oak" (say Messrs. Oliver & Co.) "there are considerable varieties—white, red, grey, and blue. The former is the most valuable. It is found in several parts of the Province, principally in the North and West. A large quantity of it is made into square timber for export." Mr. Dempsey mentions in his evidence that the Grand Trunk Company got a good deal of white oak from his section (Prince Edward County), for the purpose of making railway cars. Ties are also made of oak, where the wood is sufficiently plentiful. Mr. Hay objects to oak because it is hard to work, and "warps like the mischief," nevertheless it is not unfrequently used for furniture.

The firm of Bennett Bros., of London, manufacturers of church and school furniture, writes as follows with regard to the use of oak:—

"It was stated that oak is unfit for furniture. If white oak was meant this was correct; but white oak is valuable for many other purposes, namely staves, bent ware, and carriage work; but it is, and has been, so valuable, that it is nearly as scarce as walnut in this country, and will soon have to be imported in the same manner as walnut."

"There are, however, other varieties of oak, black or red, and yellow, of which there are large quantities in all parts of the country, both of which are well adapted for furniture, being straight in the grain and not liable to warp or change its shape, besides being easily wrought, and when finished, there is no wood to equal it in appearance except walnut, and perhaps some varieties of white ash."

"We might state that we use it entirely in church furniture and school work, and it is to be regretted that so much of what is destined to become a valuable wood is being destroyed through ignorance."

"As you are probably aware, fashions change

in wood like in everything else. Twenty-five years ago it was all mahogany and oak, then walnut; at the present it is imitation of ebony, mahogany coming in, with a prospect of oak to follow, in which case oak will become a valuable wood."

THE CHESTNUT.—Of this wood Messrs. Oliver & Co. say:—

"This wood is now almost extinct, and what remains is confined to the same limits in the Province as is walnut. Its principal use is in the finishing of churches, also public and private offices."

THE POPLAR. A considerable demand has sprung up for poplar, the wood of which is used for making paper pulp. In the Niagara district, and in Prince Edward County, as well as elsewhere, it has been eagerly secured at from \$3 to \$4 per cord for that purpose. The demand for poplar for this branch of industry is likely to increase rather than diminish. Poplar is also used to manufacture charcoal for smelting purposes.

THE BIRCH.—In view of the rapid disappearance of the walnut, the black birch will be the alternative with furniture-makers. Mr. Hay says with regard to this wood:—

"Black birch will be the only wood you can fall back on in a few years. In the north there is a great deal of it. It is an excellent wood. At present it is not dear because it is not scarce."

"You can get any quantity of it north, and it can be purchased at the mill readily at from \$15 to \$16 a thousand. Black birch is to be found in all the northern regions. There is a great deal in the Manitoulin Islands, and in the Peterborough and Haliburton district. It is to be found also in Muskoka. They have been shipping birch from Lower Canada these many years back. It is quite an article of export there. Black birch is mixed with the different woods of the country in large quantities. It is very easily detected among other trees. I don't use so very much of it now, but it is on birch we shall have to fall back after the walnut is gone. It is from birch that these perforated chair-bottoms are made. I think there is such a thing as bird's-eye birch, but it is very scarce. I wouldn't give more for that kind of birch than plain wood."

Messrs. Oliver & Co. say of the birch:—

"This wood is found in nearly every part of the Province. It is a very fine wood, and although the demand for it is yet very small, there is little doubt but that, in a few years, it will be largely in request for the uses to which cherry, butternut and walnut are now put. It should be husbanded with the greatest care."

THE BEECH.—Beech has no standing in the market except for fire-wood.

THE BASSWOOD.—Basswood, like poplar, is in good demand for paper-making purposes. Mr. Caldwell, M.P.P., also refers to it as used

for furniture, and for boxes in starch factories. All that can be got is shipped to Oswego. Mr. Hay uses it for furniture. It can be used in some cases in place of pine, and is cheaper than clear pine. Mr. Beall says:—

"Basswood, until lately, has been largely used for buggy making, but it is not so much used since the introduction of bent wood for the bodies of buggies."

THE WHITEWOOD OR TULIP TREE.—The whitewood or tulip, which grows exclusively in the warmer sections of the Province, is used largely by carriage-makers in constructing the bodies of carriages. Messrs. Oliver & Co. say, about the whitewood:—

"A few years ago there was a large quantity of this wood growing in the western part of the Province, but owing to the great demand for it, it is being rapidly consumed, and is now very scarce. It meets a ready sale at good prices. Its principal uses are for car and carriage building, and in the manufacture of furniture."

THE WILD CHERRY.—A large demand for this wood has sprung up, chiefly in the United States. Mr. Hay says of it:—

"In supplying the place of walnut, cherry is a very valuable wood. They are using it very extensively in the United States, making ebonyized furniture from it. It has a very close grain, and it is very fast disappearing. I am speaking of wild cherry. That tree grows to a fair size. We get some lumber twenty and twenty-two inches broad from it. I never saw a cherry tree growing, so that I can't say how much lumber there would be in one. I can't say whether they are high or not, but some of them grow to nearly the same girth as walnut."

"The wild cherry forms a resource to fall back upon in the absence of walnut, but it, too, is fast disappearing. We are exporting wild cherry largely to the United States, where black furniture is very fashionable, and cherry lumber takes the best stain. I think it is as enduring as walnut."

Cherry wood is also being used largely in the internal fittings of cars and public buildings.

THE WALNUT.—The Black Walnut, so far as it exists, is the staple article in demand for cabinet work of all kinds. Mr. Hay thus refers to this wood:—

"When I first came to this country there was very little walnut used, but one or two years afterwards it came to be used more extensively. I think it was Sir Peregrine Maitland who first introduced walnut here, and who was the first to make it fashionable. Previous to that, they had used cherry, or any of the common woods. Since its first introduction, walnut has been the staple fashionable wood for making furniture."

"When we first commenced making walnut furniture we got the wood from Canada West. A great deal came from about Port Stanley and the banks of the Thames, in Kent, Essex.

and South Middlesex. We now obtain very little walnut indeed from that part of the country.

Lately we have been getting our principal supplies of walnut from Indiana. The walnut grown in that State is as good as that grown in Canada, but as you go south of Indiana the walnut is of a lighter shade. The dark walnut grows best in a climate such as that of Michigan or Canada. I don't suppose the supply in Indiana is inexhaustible. I have been told, in fact, it will not last a great many years.

When I came to Canada first they used walnut for rail fences. The principal value of walnut is that it is an excellent wood for furniture, and is handsome in appearance. It is universally admired, has a close grain, is not liable to be much affected by changes of temperature, and at the same time it is not hard to work. It is a very valuable timber economically.

I couldn't say exactly what time it would take for a walnut tree to grow to maturity, fifty or sixty years at least. I don't know any other part of Canada where walnut is to be found except the district I have mentioned. There was a little once in the Niagara district, but that has been cut down. There is none at all north of us. I don't think any careful examination has ever been made of the walnut region to ascertain how much of the wood may still be remaining; but I am sure there can only be very little left. I have never appointed an agent for that purpose. Walnut is admitted free of duty into Canada; it would be a desirable thing to replant walnut. There would be a great market for it.

Black walnut is being used in the manufacture of sewing machines, organs, and car building, as well as for the purposes already mentioned.

THE BUTTERNUT.—The Butternut is mentioned as being used in many cases as a substitute for walnut for cabinet work, since the latter has become scarce. Mr. Hay does not, however, utilize it to a large extent in his business. He says:—"Besides cherry, butternut is a useful wood. Some call it white walnut. We do not get a great deal of butternut, as we cannot use it much for furniture. It is not a substitute for the black walnut. Some houses inside are fitted up with it." Butternut is excellent wood for veneering, and also used in finishing the interior of churches and other public buildings, and in the manufacture of cigar boxes.

THE HICKORY.—Hickory is in demand from very early stages of its existence, to the time of mature growth. Mr. Beadle says, in connection with this wood:—

"One of the greatest pests we have in our country is the axe-helve hunter. When a hickory tree gets to be six inches in diameter he will offer the farmer so much for it that he is induced to sell it."

For handles for tools, hickory is in perpetual request. The spokes and finer parts of carriages, are also made of hickory.

SYCAMORE.—Of the Sycamore, Messrs. Oliver & Co. say:—

"This wood is grown entirely in the western part of the Province, and being scarce is in good demand. It is not much used in Canada, and what there is, is principally manufactured into tobacco boxes. Owing to the high prices to be paid for it; soft elm and basswood are being used as substitutes."

THE CEDAR, HEMLOCK, TAMARACK.—There is a constant demand for these woods, or one or other of them, for rails, posts, railway ties, and many other purposes. Hemlock bark is also largely in request by tanners for tanning hides.

The following quantities of square timber is expected to be transported over the Toronto, Grey and Bruce Railway this season:—

Table with 2 columns: Name and Quantity. Includes Cook Bros (160,000), Burton Bros (100,000), McArthur Bros (100,000), Platt & Bradley (50,000), J. Lattimer (40,000), J. Simpson (30,000), Total (540,000 cubic feet).

HAGYARD'S PECTORAL BALSAM is composed of the most healing balsams and gums. The balsams, which enter into its composition, were used by the natives when America was first discovered, and are combined with other vegetable tonics, so blended together, that it is a specific for all affections of the throat and lungs. Thousands of bottles are used annually, and is considered one of the standard preparations of the day.

SPRING PRICES FOR LUMBER.

It is one of the peculiar features of this season's business that there has been no weakness of moment displayed in any of the northwestern markets. Generally, as the winter draws to a close and the time approaches for navigation to open, an operator here and there will begin to get nervous, and possibly shade his figures a trifle. This sort of thing being contagious, it spreads rapidly from yard to yard, and from market to market, until the whole lumber-selling district is filled with dealers who are more intent upon making prices that shall be as low as their neighbor's, or lower, than they are upon getting a profit on their lumber or even getting back the money invested in it. It is customary, in fact, for lumbermen to have a terrible time with prices from about the first of April to the middle of July. What with the discounts attributable to moving yards, the weakening effect of the early arrivals from the manufacturing points, and the general competition that comes with the opening up of business, the spring months are usually turned into a season for cut prices, which everybody deplores and helps to make at the same time. This rule seems to have operated without regard to the kind of trade that the lumber dealers looked forward to. It may be remembered that the prospect for business a year ago at this time was remarkably fine; it may also occur to most of our readers that notwithstanding the activity with which business started up at the opening, and the apparently bright prospect ahead, the middle of May, and indeed an earlier date, found prices in a sad condition of demoralization. They will probably be able, without much effort, to recall two further facts: first, that the decline in prices was followed very quickly by a marked decrease in the volume of trade, and secondly, that the business continued to average less than in the previous year until, some time in July, prices were again advanced and their former firmness re-established. Last year, in this respect, was simply a copy of the year before, that of the last previous one, and so on for a half dozen or more, before which time, we believe, the custom of breaking up the spring trade and taking all the profit out of it by an indefensible cutting of the current prices, was not generally recognized as to become binding upon the trade.

The question that arises just now is whether the trade proposes this spring to follow the groove cut for it in the days when business was poor and depression and financial disaster the rule, or is to mark out for itself a new road and travel steadfastly in it through this trying season. That there is some disposition on the part of the present holders of lumber to take the latter course, the Lumberman feels justified in assuring its readers, the conclusion being supported both by the statements made by a number of Chicago dealers—who are generally in the foremost rank when any cutting is going on—and by the similar statements that reach it through the medium of correspondence from lumbermen in all parts of the Northwest. In one of the trade meetings in this city not very long ago, one large dealer, who is known to be pretty well supplied with stock, declared his disbelief in the theory that prices must fall in the spring, and his views were generally approved by those present; while from competing points we have only to refer to the correspondence that appears in the columns of this paper from week to week—evidence that is abundantly supported by private advices from the operators themselves—to show that the general feeling outside is favorable to a continuation of the present firmness and the present remunerative prices.

As an abstract proposition, it would hardly seem that there could be two opinions about this matter. The lumber that is now offering, and that which will be sold during the next three months, was mostly bought in the latter part of last season, at a time when it was pretty nearly at the top of the market. There has been added to this price the cost of piling, insurance, interest, and the regular proportion per thousand feet that all lumber must bear of the current expenses of the yard, such as rent, labor in handling and selling, etc., these items in the aggregate probably bringing the net cost

of the lumber, as it now stands in pile, up to a point that is only enough below the quoted prices to admit of a fair profit on the investment and risk. This lumber, costing within a small sum of what it brings, is wanted, as near as can be found out, by consumers. Retail dealers are already buying freely, and there is every indication that there will be an ample demand for every foot of stuff that is now drying, probably before it can be as thoroughly seasoned as it ought to be for shipping. Can any one, as a matter of fact, see in such circumstances as these any reason for suffering prices to decline as they did last spring, and as they have done again after spring heretofore? If there is any such reason, it must lurk in a very obscure corner, for the Lumberman, though it has searched diligently, has failed to find it. To a disinterested person it seems like a perfectly plain matter, about which argument is the most unnecessary thing imaginable, and any other conclusion than that no real occasion exists for cutting prices this spring seems unwarranted and altogether unreasonable.

There are twenty reasons why prices should be held up, to every one that may be brought forward to bear out the notion that they should go down. One of these reasons is a particularly strong one, and one that should have great weight with all members of the trade. If there are any dealers who may be tempted to shade a little here and there in getting out a new list, the Lumberman would ask them to pause a moment and consider what will be the effect of such action. Will it be apt to bring to their yard more orders, and will they realize from it the nimble sixpence that is said to be better than the slower shilling? The facts will hardly bear out any such theory. If anybody thinks that the true way to stir up trade is to make a cut in prices, he should study the history of his business a little. In April, 1880, the lumber dealers in this market indulged in the costly luxury of cut lists, and what was the result? Simply that the shipments from this market for the first half of the year showed a falling off of something like five per cent., and this, when at the beginning of April they exhibited a gain of an equal percentage, thus proving that the cut in prices, which was made for the purpose of improving the business in point of volume, actually reduced the amount of it to such a degree that it did not even keep up to that of the previous year, which, as everybody knows, was not thought to be a very active season.

If this is not satisfying proof, the proposition may be reasoned out, and the same conclusion arrived at. Let us inquire for a moment how a cut in prices acts upon a buyer. Does it have the effect to make him anxious to get hold of all the lumber he can, and induce him to send to market large orders by the earliest mail? Generally speaking, no. When he gets news of a cut in prices, he quietly curls himself up in his chair and soliloquizes something after this fashion: "That's just about what I expected. All this talk that the drummers have been getting off about prices being firm and likely to go up, and about there only being logs enough to supply the demand, is all taffy; there's going to be lots of lumber, and lumber is going down still more. Now, wouldn't I be a fool to buy any lumber now, when I am almost sure to get it from 50 cents to \$2 less two or three weeks hence? No, thank you; I'll wait a bit." Whereupon he returns meditatively to his private office, and carefully depositing the fragments of a partly written order for lumber in the waste basket, turns with a bland smile to a customer who has just come in, with the remark: "It is impossible for me to fill your bill, Mr. Smith, for two or three weeks. I think you better put off building until after you get through planting. I may be able to shade the price a trifle then." This sort of thing among the retailers of course tends to make the cutter of price lists and the advocate of low prices happy, because it brings him such an enormous trade and such marvelous profits!

We might multiply arguments indefinitely, and adduce facts without number, to show the fallacy of the reasoning employed to prove that prices should be reduced at this season of the year; but we shall not do it, because it appears unnecessary. The present tendency at the chief

distributing points is not in the direction of a decline, and we think there is warrant for the belief that it will not take that direction. The spring will probably be a peculiar one, and its peculiarities will be of a kind that tend to strengthen the market. For one thing, the opening will be late, which will put off much longer than usual the arrival of fresh stock. Assortments, too, must continue to be very much broken, and the difficulty in filling orders consequent upon this circumstance will make the lumbermen more anxious to get full value for what they do fill, and give them less time to worry over the possible chance that the yard on the opposite side of the way may have received one or two more orders than they did in the last mail. The trade that will undoubtedly set in, if it is not disturbed, as soon as good weather gets the upper hand again, will also stimulate prices to some extent, and, when it gets fairly started, help to make them firmer by showing the dealers that the business is really there and coming to the front just as fast as it can. That the business is there, and that the dealers will get it, if they are sensible enough not to frighten it away with low prices, the Lumberman has not a doubt, and consequently it is equally certain that the price list will need no further revision in the direction of lower figures this spring.

If the indications by which lumbermen judge of the future are worth anything, they point very plainly to the fact that there will be a demand heavy enough this spring to use up about all the dry lumber the dealers can get their hands on, and to sell this stock they have carried all winter, and that they paid a high price for when they bought it, for less than it is worth, would seem to any ordinary constituted intellect an act of supreme folly. The Lumberman cannot believe the representatives of the trade, who have this matter under their control, can be guilty of such a piece of foolishness, and it has therefore high hopes of recording, as the present year goes by, a business in lumber that will make the biggest booms of other years seem small by comparison.—Northwestern Lumberman.

LAKE INSURANCE.

The Buffalo Courier says:—The insurance companies engaged in marine underwriting on the lakes have finally come to an agreement as to a schedule of rates for hull risks for the ensuing season. The rates published have been formally adopted by all of these companies, without reservation. On an average they are about one and a half cents higher than those of last year, which, as is well known, was exceedingly disastrous to lake underwriters. At present there seems to be a strong unanimity of feeling among the representatives of the companies interested in this important subject, and experience has shown that it is for the interest of them all to work together throughout the season on a mutual basis:—

Table: ON STRAM AND SAIL VESSELS. Columns: Class, Season, Year, Average. Rows: A 1, A 1 1/2, A 2, A 2 1/2, B 1.

Table: ON TUGS. Columns: Class, Lake Privilege, Wrecking Privilege. Rows: A 1, A 1 1/2, A 2, A 2 1/2, B 1.

Season ends November 30. Risks attaching on or after May 1st subject to a deduction of ten per cent. from the above rates.

LIMITS OF INSURANCE. No valuation to be less than eighty per cent. of the value expressed in the Register. On vessels valued in policy at— \$10,000 or less... 3-4ths \$20,000 or less... 4-5ths \$30,000 or less... 5-6ths \$40,000 or less... 6-7ths \$50,000 or less... 7-8ths Over \$5,000... 9-10ths

CLASSIFICATION. The Inland Lloyds classification register of 1881 to be the basis as to class and valuation.

COWAL.—Thomas C. Lippsey, of Cowal, Dunwich, Elgin Co., will cut at his mill this season over 600,000 feet of hardwood.

HAMILTON'S FOUNDRY AND MACHINE SHOP, PETERBOROUGH.

SAW MILL WORK A SPECIALTY—A NEW CIRCULAR MILL—COVEL'S SAW SHARPENER—VERY LARGE STEAM HAMMER—A BUSY SEASON.

The large foundry and machine shop of Mr. W. Hamilton is known to every resident of the Town of Peterborough, and to many living at a considerable distance. It has for years been looked on as one of its leading industries, and judging from present appearances it is bound to keep a place in the front rank. The name of Mr. W. Hamilton as a first rate manufacturer in his own particular class of work, is now fully established from one end of the Dominion to the other, and it is not by any means unknown across the border, as many of the American firms, with which he has come in contact in the matter of tendering, can testify, to their cost. He makes a specialty of mill work of all kinds, more particularly that used in sawmills, and furnishes such institutions throughout from top to bottom. As is well known, Mr. Hamilton does not turn out any trashy work, but instead, everything, no matter how small or large it may be, has to pass the minutest inspection by practical men before it leaves the establishment, and thus customers are assured of obtaining the very best article that can be manufactured by men thoroughly skilled in their business.

A VISIT TO THE FOUNDRY.

The first glimpse of the premises betokened business, boilers complete and half finished, as well as numerous other heavy articles were to be seen on the road in front of the premises, and the number of men engaged in putting in raw material and taking out finely finished machinery ready to place in position, gave the neighborhood a business-like air. Passing inside, through the door of the machine shop, we found ourselves surrounded on all sides by workmen busily engaged at their various occupations, and were almost deafened by the increased din and clatter of the various machines, which were all in full operation. Mr. Hamilton informed us that business is booming without any doubt. Every department was engaged to its fullest capacity, and still they found it very difficult to keep up with their orders. Being very busy himself, he introduced us to Mr. W. H. Trout, the draughtsman and the chief designer of the works, who kindly consented to show us through this "hive of industry."

SOMETHING NEW AND UNIQUE.

Mr. Trout was busily engaged in the drawings of a new circular saw for Messrs. Irwin & Boyd for the Nassau mills. It is of a wholly new design, made from entirely new patterns, drawings, etc., and is calculated to meet every present and even the probable future wants of the lumbermen. It is a very heavy, powerful mill driven by a 20 inch belt, running on a 33 inch mandrel pulley. The mandrel is 4 1/2 inches in diameter and nearly eight feet long. The frame or husk is 6x9 feet. All the pulleys are extra heavy with solid web and are perfectly balanced. The racks and pinions for the carriage are cut from solid cast steel. New improvements are claimed for the set works, giving greater exactness and convenience. The quick reversal of a heavy carriage and heavy machinery, or a quick change from feed to gig, or gig to feed is probably the foremost problem in the mechanics of circular mills. An automatic brake which plays its part at the proper moment, offers to accomplish this most effectively. One movement of a convenient lever sets all the dogs. The saw is set in line without changing its relation to the carriage or any other portion of the machinery, as it is all self-contained, the main belt for tightening the pulley not excepted. This performs double duty; besides serving its proper office it drives the gig. The carriage is operated by a 1 1/2 inch hemp rope. With suitable gearing it may be worked by a wire rope, or the ordinary rack stick and pinion, or in steam mills by the steam feed. We understand that a patent has been applied for, covering all the improvements, and have no doubt that it will be granted. Practical men who have examined the mill all agree that it is the mill of the future. Before commencing our inspection of the various shops, Mr. Trout furnished us with some information as to their business.

SOME GENERAL FACTS.

Work has never been as plentiful since 1872, in which year there was a great run, but still not as much as at the present time. The work turned out now is far superior in every respect to that which was turned out eight years ago, for the simple reason that the mill men will not look at work now that they would jump at then. The prospects for the continuance of the flow of work are brighter than ever they were and the future outlook is excellent. Mr. Hamilton has refused some heavy contracts, for which he had the first chance, on account of not being able to turn out the work in the specified time. Several orders of work from Manitoba have also been refused as he prefers to handle work nearer home, when there is enough of it to keep all employed, as is the case at the present time. The capacity of the shop is limited and we are told that it is proposed to extend the premises shortly, in fact the necessity for such a step is very apparent, and will be more so before long. The wages of the employees have been recently increased all round and even at the enhanced figures, it is a very difficult thing to secure competent men, a rather different state of things from a few years since, when first-class men could be obtained on all sides at a considerably lower figure than is now paid. As we said before, Mr. Hamilton's specialty is mill-work, particularly that for saw-mills. For this class he has the "run" for Ontario and does the bulk of the work. Nearly all of the large lumber manufacturing firms deal here and many of the smaller ones, although the greater portion of the work required for the latter can be done at nearly every foundry throughout the country.

WORK ON HAND AND RECENTLY DONE.

All the machinery required for the large elevator, now being erected by the Midland Railway, is being made at the present time. The engine is of the latest improved Corliss pattern and is of 120 horse-power. The boiler, a return tubular, is 5 1/2 x 14 feet. Besides the engine and boiler there is all the shafting, pulleys, etc., of which a large number will be required. There is also in course of construction a circular mill for Mr. Tait, of Gravenhurst, who was recently burned out; a circular mill and all the accessories for Messrs. Williams and Murray, of Blind River, Georgian Bay; two gang mills for Gilmour, of Trenton; Ross & Co., of Buckingham, Quebec; and similar machines for at least a dozen other firms; two dozen of Covell's patent saw sharpeners, (which are manufactured by this firm under the Canadian patent, and are rapidly winning their way into public favor), besides complete outfits or repairs of some kind for nearly every mill in this district. So busy have they been in filling orders that Mr. Trout has been kept steadily employed since the beginning of the present year in draughting patterns for the work.

THE PATTERN SHOP.

In the pattern shop in the second story of the main building over the machine shop. We found eight men at work, with Mr. W. McLean as foreman. All the patterns are made here, and such wooden work as is required on the various machines. There is not much wood work to do as iron is chiefly used in the construction of all the various patterns of the machinery which is made. Cogging wheels and making frames for sawmill carriages, and putting together frames generally appears to be the principal work. Several of the men were engaged in making windlasses for towing sawlogs and rafts of timber on the lakes. The machinery in operation consisted of two planing machines, and numerous saws.

THE MACHINE SHOP.

We next entered the machine shop, under the charge of Mr. Geo. Munro. Here everything was in activity. Every person was busy and worked as if they knew that there was lots to follow. Immediately in the rear of the machine shop is the blacksmith shop, where six men were working at their forge, under the watchful eye of Mr. John Fraser. The machine shop is literally "choked full" of shaping and slotting machines, planers, emery wheels, and the thousand and one large and small machines which are known to the mechanic. It looks as though it would be an impossibility to crowd any more men or ma-

chines into this room, and as things are at present it could not be done, but we are told that by a re-distribution, which it is proposed to make at an early day, if the premises are not extended in the meantime, one-third more men and machines can be accommodated. The hands here are utterly incapable to keep up with the press of work, but in order to accomplish as much as possible they work until ten o'clock every night. There is in this room a steam hammer which is worthy of special mention. There is nothing like it to be seen outside of the cities, and large cities at that. Toronto cannot even boast of one, and of course Mr. Munro feels proud. This feature alone distinguishes this establishment from all others of a similar character in the Province. It can be used for forging both heavy and light work, in fact anything from a monster anchor down. It will work with any amount of force from a few pounds to several tons. The possession of this hammer is a great advantage, as formerly all heavy work had to be sent from Peterborough to Buffalo in order to be forged, but now it can all be done at home and a large amount of time and money saved. Some of the workmen were engaged in putting the finishing touches to the large span circular mill for the Messrs. Gilmour of Trenton. The machine is thirty feet long and is operated by a steam cylinder. The logs are cut the same on both sides, slabs and boards being taken off in any desired number, and the stock left any size wished for, according to the diameter of the log. The log is held on at one end only by a massive iron dog, which is an entirely new feature, and one that cannot help but please. The idea is a new one and originated in this shop. This is only the second mill of this kind that has been turned out; the first one has been in operation in Mr. Buck's mill at Port Severn during the last season, and that gentleman says it is the most satisfactory he has ever had in any of his mills. Coming from a gentleman of such great experience of Mr. Buck, this statement has naturally had a good effect, and Mr. Hamilton expects to have a large run on these machines during the present year.

THE MOULDING SHOP.

Having viewed the machine shop thoroughly, we next proceeded to the moulding shop, where Mr. Thos. Tucker is looked up to. This is by long odds the quietest room in the whole foundry, but noise is not necessary here—although dust appears to be—to carry on operations. The men were engaged in doing only general work necessary for the contracts. In a large oven are dried the cores and special moulds, which are sent in and taken out on a small car which runs on rails. Iron casting is carried on every alternate day, and brass casting at irregular intervals, just whenever required. The heaviest cast made is about four tons, although, should occasion require it, they can cast as high as five tons. To an ordinary observer not acquainted with the work going on, this is the least interesting room in the building, and that fact combined with the dust which was floating around thick, made us take a hasty departure to

THE BOILER SHOP.

Things are quiet enough here except when riveting is going on, and then any person who is fond of noise should just drop around and listen for a short time. Boilers for the Midland elevator and half a dozen other places were in process of construction. As a general thing many of the boiler makers are employed at outside work, and it is a rare thing to find the whole staff in the room. In this branch Mr. Hamilton has had more competition than in any other department of the business. Some large firms do nothing else but manufacture boilers, but notwithstanding this fact, good work always tells, and as the majority of people prefer a first-class article, Mr. Hamilton's boiler shop is kept busy all the time. Here are large hoists, cranes, etc., for moving the heavy work and loading it on waggons, by which all the machinery made has to be drawn to the railway stations. When the "missing link" is constructed, it is expected to pass close to the foundry and will thus remove one great obstacle and greatly facilitate shipment. *Review.*

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

MINDEN.

JOBBER.—The Bobcaygeon Independent says: We have had a very busy time here all winter, and one of great prosperity to both settlers and store keepers. The lumbering has arrived at a point when there are not so many large shanties and many more jobbers. It is not the less profitable to the country. In fact it is more profitable, for the money goes more directly into the hands of the settlers. A settler who gets out logs, and sells them to the lumberman, makes all that can be made by the operation, and more than would be the case if the lumberman run a shanty and took them out with his own hired men. One operator, who manages the business for a Bank, paid over nine thousand dollars this season to settlers for logs they got out, and others in proportion. But the feature of the season has been the large quantities of forest produce taken out other than pine logs and squared timber. The Victoria Railway will carry not less than a hundred thousand railway ties, twenty thousand telegraph poles, and so many posts, and so much cord wood, that no estimate can yet be accurately made. The ties bring 14 cents each, the poles about 30cts. each. Thus \$14,000 will go to the settlers for ties, and \$6,000 for poles. This \$20,000 goes into the pockets of the settlers, and is just so much gained as a result of the railway being opened. The ties, in another year or two, will attain a value of twenty cents each, and then it will be a good business. I should think that not less than \$20,000 will be paid to the settlers for posts and cord wood, and thus forty thousand dollars will be gained to this country, this year, by the construction of the railway,—which cost the country altogether only \$55,000 of bonus.

UXBRIDGE CAR WORKS.

The car works of the Toronto & Nipissing Railway are situated in Uxbridge, and form one of the most complete establishments of the kind in Canada, although not by any means the largest. There is now on the stocks almost completed a first-class passenger coach, which will be finished equal to any on the continent. The inside will be of walnut facing, with Hungarian ash panels. The coach is 67 feet in length over all, 8 feet 10 inches wide outside, and will contain 32 double seats. The framework is strengthened by upright iron stanchions, and triangular iron braces, which, from their peculiar construction, support the carriage from each end. The roof has 10 iron rafters, connected with ribs fastened to the floor, giving great strength combined with lightness. Several new cattle cars are also under way. They are 30 feet long, 8 feet 10 inches wide, by 6 feet 2 inches high, clear of roof, giving ample room for stock. The cars, although to be used on the narrow gauge, are of dimensions suitable for the standard width, should the railway company at any time decide to widen the gauge. The rolling stock of the company is kept in excellent order, and under the management of Mr. Joseph Haggas, mechanical superintendent, keeps improving. The locomotive department turns out first-class work—amongst which may be mentioned a specialty, viz.: "the Haggas Water Elevator," an ingenious contrivance for supplying locomotives with water from underground tanks along the line. It is worked by a suction pipe connected with the engine, which, by forming a vacuum, draws the requisite supply of water into the tender in a very short time. This apparatus is adopted by the Midland and other railways, and is found to work well. It does away with elevated tanks and pumps, and is safer from frost during winter. Mr. C. E. Caron is in charge of the wood department, as master car builder.

In cases of Chronic Diseases which doctors have failed to cure, BURDOCK BLOOD BITTERS has achieved its greatest triumph. All diseases of the Blood, Liver and Kidneys, Scrofula, Dyspepsia, Nervous Debility, Rheumatism, Piles, Female Complaints, and all forms of lost vitality, are promptly cured by this great renovating Tonic. Trial bottles only cost 10 cents.

"Hail Beauteous, Bounteous, Gladsome Spring"—this was Mark Twain's prize poem—but the dire diseases incident to spring, spoil the romance. Burdock Blood Bitters is the prize remedy; the remedy prized by all who have tried it as the best Blood Purifying Tonic and System Regulator in the market. It cures all Blood Humors from the worst Scrofula to a common Pimple. Sample bottles 10 cents. For sale by all dealers in medicine.

THE TIMBER SUPPLY QUESTION.

We have received the following for publication:—

Sir,—I have for several years been endeavoring, through the press and in pamphlets, to draw attention to and impress on the Government and lumberers, both of Ontario and Quebec, the importance and necessity of preserving our timber resources, so as to place us in a position to take advantage of the wants and necessities of our neighbors across the line, when their supplies are exhausted, and notwithstanding I showed that that time was within a few years of its accomplishment, no heed has been given to my warnings.

Since my first introduction of the question of supply, in the United States and Canada, the Western lumber periodicals have lost no opportunity in trying to discredit my statistics on the subject. They have in the interest of the manufacturers been endeavoring to hoodwink the consumers with assertions that their timber resources were abundant to meet the demand for many years, and thus withholding them from pressing on the Government the necessity of admitting our Canadian lumber free of duty and all other obstructions to which it is liable. But the Government itself has now, it appears, taken the matter in hand, and has sent experts to the timber supplying States of Michigan, Wisconsin and Minnesota, the only ones they have from the Rocky Mountains to the Eastern Atlantic seaboard, to investigate and report on the extent of their timber resources for their forthcoming census returns, and I herewith beg to hand you a copy of the *New York Times*, of the 21st instant, containing an article on the subject, in hopes you will give it to the public through the *Lumberman*.

It will be seen from the article referred to, that at the present rate of consumption their supply will be totally exhausted within the short period of about nine years, and when there is added to the population a yearly complement of a million and a half consumers, a number equal to the whole population of the Province of Quebec, the supply will not suffice to respond to the demand for half-a-dozen years at the outside, and in two or three years at the very farthest a total cessation of shipments to the East must take place, which will necessitate a doubling of our present manufacturing capacity to supply its place, and be the means of doubling as well the value of our wood product.

The Western Ontario papers inform us of 100 acres of pine changing hands recently at \$22,000, enough to purchase half-a-dozen good farms with all their buildings and betterments, and \$1,000 have been refused for ten pine trees in the Township of Puslinch. And what is the reason of this extraordinary advance in the value of such property? It simply arises from a scarcity where, a few years ago, pine on a farm lot was looked upon as an eyesore. It might surely be supposed that our lumberers would take a lesson from this—but no—the state of prosperity to which the United States have attained, occasioning an increased consumption of lumber coupled with a short supply and a consequent good demand, have had the effect of sending our lumberers into the woods with double force, to slaughter away and keep the markets glutted, and thus waste their timber and entail on themselves a double loss.

I do not hesitate or fear to assert that there is no description of commercial wood in our forests that will not in five years be worth more standing where it is, than it is to-day manufactured for market.

JAMES LITTLE.

Cote St. Antoine, Montreal, March 25th, 1881.

When on the 13th May, 1878, you published a letter, from Mr. James Little, of Montreal, on the subject of the devastation of our woodlands, you no doubt remember the incredulity with which his statements were received by those pretending to be informed on the subject; but you have now the satisfaction of showing that the warnings then given are fully justified by the reports of the Government itself, now coming to light through the medium of the lumber journals of the West, which, I may remark, were as adverse to giving currency to the facts then as they are now urgent to have it recognized that they assisted in giving the warning.

The facts that he presented were, that of the

whole twenty-six States, comprising the New England, Middle, Western, and North-Western to the Rocky Mountains, only four, namely, Maine, Michigan, Wisconsin and Minnesota, had a supply of timber in excess of their own wants, and the question was, how long the supply for commercial purposes would last the drain upon them? The white pine being the wood of prime importance, his remarks were that the supply of this timber was confined almost entirely to the three States of Michigan, Wisconsin and Minnesota, and that the demand on them was so heavy for all sections of the country, that it would not be possible for them to respond to it for more than six or seven years longer.

The *North Western Lumberman* now states, from information derived from the proper authorities, that the forthcoming report of the United States census will show that the pine timber supply of the North-West, in 1880, was in Minnesota, credited by popular estimate at 40,000,000,000, only 6,150,000,000; Wisconsin, from statements varied from 80,000,000,000 to 100,000,000,000, only 40,500,000,000, and Michigan, on both the upper and lower peninsulas, 35,000,000,000, making a total supply of 81,500,000,000 feet of pine timber. This paper at the same time states that the aggregate cut and destruction of pine in the three States is not far from 8,000,000,000 feet per annum, so that, if we deduct the past winter's cut, which has been an exceedingly heavy one, there remains standing today in the whole North-West only 73,500,000,000 feet, which is distributed about as follows, viz.:

| | |
|--------------|----------------|
| In Minnesota | 5,500,000,000 |
| In Wisconsin | 39,000,000,000 |
| In Michigan | 30,000,000,000 |

Total ... 73,500,000,000

From the above it will be seen that even now, when only three years of the six or seven mentioned by Mr. Little have gone, these States have reached a condition when common prudence would say they had not another foot to spare. They are rapidly growing in wealth and population, and in all probability will have 6,000,000 inhabitants to supply within their own boundaries in the next ten years, so that the amount now remaining would barely supply their own wants for twenty years from to-day; but what will be their condition in four years from this time if the continued slaughter of the pine is kept up?

In round numbers, Michigan is parting with her forests at the rate of 5,000,000,000 feet a year; consequently at the end of four years will have only 10,000,000,000 remaining to supply her more than 2,000,000 people. Wisconsin will probably part with 13,000,000,000 during the same period, leaving her with only 25,000,000,000, and Minnesota, that has not a stock to-day one quarter sufficient for her own wants, will be reduced to 3,000,000,000, leaving only 38,000,000,000 of white pine in the whole North-West (an amount little more two years' consumption of the whole country), as the reserve supply, not only for themselves, but for the entire country. It is but trifling with the subject to speak of the few patches here and there in our own State, and in Pennsylvania, Virginia, or elsewhere.

Formerly, when the New England States parted with their pine, there remained the forests of New York, Pennsylvania and Canada to fall back on, these in their turn fell back on Michigan, but now the reserves themselves are about gone, and even Canada is forced to compete for supplies in the forests of Michigan and Wisconsin for the English market, and unless something is at once done to stop the destruction of this indispensable timber, it will be all gone, and we will have only the stumps remaining to remind us of our folly.

It is to be hoped, now that the Government has come into possession of the facts, it will take means to enlighten the public on this most important subject. An enlightened public-opinion can do much to aid in stemming the tide of destruction which is now going on with reckless precipitancy. A knowledge of the value of their property will cause owners to be more careful of it and not be disposed to part with it to go abroad at one-tenth the value it will have in a few years, standing in their forests for their own wants. The substitution of spruce, hemlock

and other woods for such purposes as they are suitable, by stopping the frightful butchery of this timber which is now going on by the use of circular saws, that turn one-quarter of the tree into sawdust; by allowing the young trees to grow; by the Government withholding its timber lands from sale; by preventing, if possible, the making of square timber in the woods, by which one-third of the tree is cut into score blocks and shavings, furnishing the most fruitful source of fire, and by throwing open our ports to the free entry of timber from any country that may be willing to spare it—and now that this timber is about gone, if the lumber papers have at last learned to recognize the difference between a pine tree and a gooseberry bush, so as to give their patrons correct information on this important subject, some little may yet be done to prolong the supply of this indispensable timber.

WILLIAM LITTLE.

Astor House, New York, March 16th, 1881.
—*New York Times*, March 21st.

VANISHING FORESTS.

The *Toronto Mail* says that the lumber question seems to be coming, if not "within the range of practical politics," at least within the range of practical business men. A long conference on the expediency of protecting the forests was recently held in Chicago; and it is a noticeable fact that the remarks were made chiefly by the owners of pine lands and the operators of saw-mills, who may fairly be supposed, from the nature of their business, to have a more intimate acquaintance with the present condition of our forests, and the necessity of protecting them and of replacing them as they are cut off, than those who merely sell the lumber after it is sawed. The situation in the States certainly seems to be rather startling. The *N. Y. Shipping List* lately said it had been advised that "the pine forests of Michigan will be exhausted in thirteen years, and those of Wisconsin and Minnesota in thirty and forty years." After quoting and commenting upon Mr. Little's letter, which we publish in another column, the *Mail* continues: "The census commissioners ought certainly to be expected to be well-informed and impartial men; and if the actual situation should be as is stated it is rather a serious matter for the States. But it is equally serious for Canada. Lumber is our staple export; if our neighbors' fields should be run out they will turn to us if we have any left. A large part of our territory seems fit for nothing else than a lumber field. This being the fact, and a demand on its resources being certain, should we not seek to turn its resources to the best account?"

Waste Paper.

A recent report of the controller of the British Stationery Office, whose function is to provide the paper used in all the government offices, states that the value of the waste paper collected from the various offices and sold for the public account averages \$50,000 a year. Hitherto it has been the rule to turn the bulk of this paper over to a single firm, under bond to reduce it to pulp in the United Kingdom. Under such conditions, the price received was less than the paper was worth in open market. The paper is now sent to the state prisons, where it is sorted and torn up, so as to be rendered practically illegible, and then sold unconditionally at much better prices than before.

At first thought it might seem to be more economical to burn the paper at once, and thus save all the expense of collection and transportation; but the controller states that the money received for waste paper in some years amounts to more than the total salaries of the controller, assistant controller, and staffs of the department in both England and Ireland.

THE CANADA LUMBERMAN.—A journal in the interest of the lumber trade, bearing the above title, which has been published in Toronto, has passed into the hands of Toker & Co., of the Peterborough Review, who will publish it hereafter. Under their energetic management it will no doubt command a large share of patronage, and if the initial number is any criterion, it well deserves to. Published semi-monthly at \$2 a year.—*Pictou Times*.

THE FREDERICTON BOOM COMPANY.

Recognizing the impetus given to lumbering operations last fall by the favorable state of the English markets, and feeling confident that the cut on the Upper St. John and its tributaries would be in excess of previous years, the Fredericton Boom Company have made ample preparations to boom, hold and raft every stick that may float or be driven down the river this year. To do this necessitated not only the repairing of many piers in the old booms, but the providing of increased boom space. Work was commenced on January 3rd in the Gill boom, below Fredericton; and here 15 to 20 teams, along with about fifty men, were employed till three new piers had been constructed and the damage done by the ice to six of the old piers had been repaired. A large jam pier was also erected in the Mitchell boom, likewise below Fredericton. The main operations, however, were conducted at Sugar Island, just below the mouth of the Keswick, where a new reserve boom has been located and constructed, capable of holding sixty millions and intended, in case of a big run, to relieve the Douglas and Lincoln booms to that extent. The location is admirable for the purpose, being well sheltered and having deep water throughout the season. Here the company have expended fully \$5,000 in the erection of thirteen jam and block piers, which will render the boom fully able to stand all strain. All logs running down the river can be turned into this area by means of a sheer boom set at the head for this purpose. The boom was located by Stephen Glasier, Esq., agent of the boom company, who has also personally superintended the construction and repairs to the several booms this winter. Perhaps the most difficult task Mr. Glasier had to undertake was devising means to guard the ten million logs now in the Douglas boom from being carried away by the run of ice this spring; and along with them, between four and five millions lying rafted in the wake of the boomed logs—all these logs having come down last fall too late to be got away before navigation closed. Two new piers have been built in this boom and the seventeen existing piers have each been raised about five feet, so as to prevent the ice from jamming in on top of the logs and carrying them away. It is expected that these piers will present an impassable barrier to the run of up-river ice and turn it in another direction, thus saving the logs in the boom. With respect to the five million rafted just below the boom, as the ice there is rotting rapidly, it is believed that they can be got away before the up-river ice runs down. Messrs. D. D. Glasier & Sons are keeping a sharp lookout, and by pushing their tugs up as fast as possible, taking advantage of the open creeks, expect to be able to tow these rafts down to St. John ahead of the main body of ice. While the boom company have made most extensive arrangements for the summer business, more improvements would have been made in the lower booms if the early wasting away of the ice had not prevented the lumber having been got out for the purpose. From the best information attainable, the company look forward to a run this spring and summer of about 150,000,000, and have made their arrangements accordingly. The quantity of snow now in the woods on the Aroostook and Upper St. John renders the chance of a sudden fall of water like that of last spring impossible, so it is extremely probable that most of the quantity above estimated will reach the boom this spring and early summer.—*St. John Sun*.

FOREST FIRES.

ATTLEBORO, Mass., March 28.—An extensive fire has been raging in the woods between Attleboro and Mansfield all day, extending into Wrentham, where to-night it is burning with great fury. A large quantity of wood and timber has been destroyed, and several dwellings are threatened. A force of men are fighting the fire, which is fanned by a strong breeze.

WILKESBARRE, March 28.—Forest fires are burning furiously on the mountains near here along the line of the Lehigh and Susquehanna railroad, and are spreading rapidly to-night.

GLOUCESTER, Mass., March 28.—An extensive fire is raging in the woods between here and Rockfort, which threatens to burn a large area.

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INFORMATION WANTED.

The *Globe* had the following editorial under the heading "Information Wanted Concerning Our Forest Wealth":—

"We have already remarked upon the absence of any definite information as to the extent of our pine lands and the character of the timber standing thereon. We have suggested that an official investigation be held before persons authorized to call for the statistics and other facts necessary to get an accurate idea of the revenue from timber dues hereafter to be received by the Province; to collect information upon practicable methods of forest conservation; to consider how far the very efficient German system of forestry can be introduced here; and generally to take such steps as will tend to bring about a cessation of many extremely wasteful practices on the part of lumberers and the owners of timbered lands.

"Upon a great many important points in forestry there is now a plentiful lack of information. All we know about our forests is contained in the report of the Agricultural Commission. That report is a perfect mine of information concerning the agricultural state of the townships in this Province, and so far as the Commission was concerned in the subject of forestry, its duties were exceedingly well performed. For instance, we learned from that report for the first time that, in the older part of the Province, there are only ten counties in which more than two-thirds of the land has been cleared, and only two counties in which more than three-quarters of the land has been cleared. What we want now is further information in this direction. Especially is it desirable that means be taken to diffuse among the owners of standing timber information concerning its present and prospective value. Hardwood timber, standing in any place where it can be easily won, is becoming very valuable. As respects black birch, the prospect seems to be that it will soon become the most valuable of our forest trees, so rapidly is furniture made from that wood coming into fashion. A word in time might prevent the felling for firewood of many a valuable birch, maple, or oak. It is also desirable to know how far the use of poplar in paper-making is likely to extend, and the extent of the supply of that wood standing within easy reach of the paper mills. In some parts of New England poplar already brings \$8 a cord for paper-making, and wood for those mills is taken from Canada in great quantities. It may be that only accurate information is wanted in order to compel the Yankee paper-makers to pay us a much better price than they do for their raw material. The supply of basswood, and the extent to which that wood is capable of being utilized, would be another interesting point for investigation. There might also be some practical means found of exacting fulfillment of promises made by the railway companies which asked and received aid from Canadian towns on the promise that cordwood should be brought in cheaply. It is too bad that, within a hundred miles of Toronto, and close to a railway aided liberally by the city, the clearings of new settlers should still be burnt in the old wasteful style, simply because the railway does not care to aid in reducing the supply of wood available for its own fuel. But such is the case.

"Then there is a great field for usefulness in the collection and dissemination of intelligence concerning the re-clothing with timber of thousands of acres of land which ought never to have been cleared for agricultural purposes. There is scarcely a township, and in some townships not a farm, which has not some land which could be more profitably put to growing timber than to any other purpose. Bare hillsides, too poor for orchards, might be put to use growing poplar or some other quick-growing tree, and the planter of the trees might begin to receive his money back in ten years from the first investment. Of young hickories we import hundreds of thousands yearly, from Ohio and elsewhere, that might just as well be grown at home. In some parts of the Province the black walnut might be grown at a profit. In all parts there is something more to be done with timber than is done. A very general desire is arising among the farmers to do something in the way

of tree-planting. What they want is detailed and accurate information as to the best direction in which to bestow their work, and this information could best be obtained in the manner we have indicated."

MAKING IRON COLUMNS SECURE.

So many accidents have occurred at fires to life and property by the sudden giving away of iron columns used for supports to the various floors of buildings, that such columns are looked upon with distrust by firemen, and their use discouraged. When they become heated by fire they are apt to break entirely, thus letting the upper floors fall. It was in consequence of the giving away of the iron columns at the Broadway fire, some time ago, that the floors from cellar to roof fell in and two firemen who were on the roof were hurried to a terrible death in the seething furnace within the building. All large cities are full of buildings whose several floors are supported on iron columns, and, in case of fire, they are quite as likely to collapse as did the one we refer to. Our building laws, which are yet crude and imperfect, permit their use, and, as they are cheaper than most anything that could be used instead, they are still favorites with builders. The very best thing to take the place of iron columns would be columns of brick, but objection is made to them that they take up too much room and are not ornamental.

Many experiments have been tried with a view to making iron columns fireproof, or at least sufficiently so to be able to stand a small fire in their neighborhood without bending, and thus bringing the entire building to the ground in ruins, long before it would be destroyed by the fire alone. Casing the columns with wood, asbestos, brickwork, etc., has been tried, and some of the methods have been described in the *Journal*. Recently two more suggestions have been made. One is to inclose the columns in rings of terra cotta, put on over the top when the column is set up. These would act as a shield to keep off the heat till the fire could be subdued. The plan is simple and inexpensive, and has the added advantage of giving opportunity to make the columns highly ornamental, as terra cotta readily lends itself to decorative treatment.

The second plan is to fill the columns with water. To do this the plates or castings, usually placed between the columns where they stand one over the other, have holes or openings of some kind, so that there is a free communication from column to column, from the bottom to the top of the building. Where columns are already erected, short pipes are used to connect them at each floor. The uppermost column is also provided with a small escape-pipe, passing through the roof to the open air. At the base of each tier of columns a pipe is connected with the street mains, so that all the columns may be filled with water, either permanently or on emergency. When thus filled with water and provided with an escape for the expansion of the water or steam, the columns would stand unharmed until every floor was burned out. Were the columns also hollow and filled with water in the same manner, both girders and columns would undoubtedly stand intact, even after all the floors and the roof had fallen in, and they could be used again in rebuilding. The system has the merit of cheapness and ease of application, and is patented in this country. We have little confidence, however, in iron columns under the conditions incident to a great fire, and the sooner their use is prohibited by law the better it will be for the public.—*Firemen's Journal*.

A Will and a Way to Execute.

We are in receipt of THE CANADA LUMBERMAN, now transferred to the proprietorship of Toker & Co., and published semi-monthly at Peterborough, Ont. As its title indicates, it is devoted to the lumber and timber interests of the Dominion, and promises to advocate all measures tending to the advantage of the trade it represents, and to furnish full and reliable reports upon the condition of the Canadian market, statistics, etc. Its introductory is written as if there was a will and a way to execute behind the promises made, which must place the journal in full rank with others of its kind.—*New York Real Estate Record*.

BURLINGTON, VT., INSPECTION.

Although doing a large business in lumber the extensive market of Burlington has no systematized method of inspection. Steps are, however, in progress looking to that end, and probably before long rules and regulations regarding inspection will be adopted by the dealers in that section. While each lumberman now has an inspector of his own, a variety of customs prevail, notwithstanding an endeavor on the part of all toward uniformity.

The grades recognized in the Burlington market are as follows: Selects, Shelving, Second Shelving, Pickings, Shippers, Box, and Mill Culls.

These gradings apply to wide lumber from eight inches and upward.

Strips twelve feet long and upward are classed as 1st Quality, 2nd Quality, 3rd Quality and Box.

Under twelve feet in length the classes of seconds and thirds are combined as one, while all unfit for this grade go into a still lower grade of 3rd Quality or into a new grade of Box.

Spruce is divided into three grades, namely: Clear, No. 1 and No. 2.

Selects. Comprise the finer grades of lumber, and include all fair widths approaching to the upper grades of other markets, and suited to all the finer finishing purposes, for which the timber is adapted.

Shelving. Includes ten, twelve and fourteen-inch stock, and is classed as first and second shelving, as to relative quality and adaptability to the purpose indicated; first quality ranks about seven dollars per thousand below selects, while the second quality is from five to seven dollars below the first. In both qualities more or less knots and sap will be allowed, not affecting the board for the purpose from which it derives its name.

Pickings. A grade of lumber of any width, suited to one side finishing, embracing sap boards, and generally such lumber as while from width not fitted for shelving, is more defective than selects, yet filling a position which must otherwise be occupied by selects. As in other markets, it may be called the cream of the common. It is relatively in price about twelve dollars below selects.

Shippers. Are of diversified widths, without shake or case knots, and free from large coarse knots, comprising the best of the common after the picks are removed.

Box. Comprises a grade poorer than shippers, yet taking the run of the common, in all fairly sound and merchantable lumber. In price it is from two to three dollars below shippers.

The grades of shelving (first and second) Pickings, Shippers and Box are, one and all, selections from Common, made with reference to adaptability to the uses indicated by their designations.

Mill Culls. Are the poorest grade of lumber adapted to any utility, or recognized as merchantable, and bear the same description as the same grade in other markets.—*Lumberman's Hand-Book*.

AVERAGE WEIGHTS OF LUMBER.

The following table shows the average obtained in the actual shipment from Chicago of 20,000,000 feet of pine lumber, during an entire season:

| | Pounds. |
|---|---------|
| 1, 1 1/2 and 1 3/4-inch surfaced 1 side | 2,102 |
| The same, surfaced 2 sides | 2,068 |
| 2-inch surfaced 1 side | 2,200 |
| White pine flooring, dressed and matched | 1,800 |
| Hard pine flooring | 2,360 |
| Ship lap, 8-inch | 1,711 |
| Ship lap, 10-inch | 1,725 |
| Ship lap, 12-inch | 1,855 |
| White pine, 3/4-inch ceiling | 756 |
| Hard pine, 3/4-inch ceiling | 950 |
| Siding | 805 |
| Piece stuff, rough | 2,500 |
| Piece stuff, surfaced one side and one edge | 2,210 |
| Thin clear, surfaced one side | 1,380 |
| 3/4-inch ceiling | 1,120 |
| Rough boards | 2,524 |
| Hard pine fenci | 2,910 |
| 4 inch flooring, dressed and matched | 1,703 |
| 6 inch fencing | 2,433 |
| Pine shingles | 249 |
| Cedar shingles | 203 |
| Dry lath | 502 |

LUMBERING IN MANITOBA.

The Emerson International of March 25th, says that James Carney, of Carney & Watson, visited the firm's logging camp up the river, near Acton, last Friday, and returned home on Monday, accompanied by his partner, Mr. Watson, who has gone to Winnipeg on business. Things are reported as booming at the camp, and a large number of oak logs are being got out. The firm expect their saw mill machinery about the 15th or 20th of April, and will rush the erection of the mill so as to commence sawing early in the season. The firm expects to handle half a million feet of logs and 30,000 feet of piles during the coming season. They propose to do their share in helping along the Emerson business boom. The boys are enterprising, and deserve to do well in their saw mill enterprise as no doubt they will, as the farmers of Southern Manitoba have scarcely yet begun to provide themselves with comfortable barns and granaries, and will require an immense amount of lumber of the class that the Emerson steam saw mill will turn out, to say nothing of the demand for oak timber which will be made by various municipalities for bridges and culverts. By the time that trade has been satisfied the Red Lake Indian Reserve will have been opened up, and Messrs. Carney & Watson can then turn their attention to pine lumber, the logs for which will be brought down the Red Lake and Red Rivers. Emerson will then not only support one mill, but a dozen. Messrs. Carney & Watson's mill will be located on the river bank north of Park street.

THE SHIP BUILDING SEASON.

Owing to several causes, the season for ship-building has not opened with as good promise as ship builders anticipated it would last fall. Freights at present are so low that there is little encouragement to builders to commence building yards, and if there is not an advance soon, most of the yards which are busy now will remain idle after the vessels at present building are got off. Ship timber is very dear also, and there seems to be no prospect of a fall in price, owing, it is said, to the scarceness of it. The scarceness was caused by many men who formerly were engaged in getting out ship timber going into the woods to get out logs, in view of the unusual activity in that branch of business.—*St. John, N.B., Globe*.

Hudson's Bay as a Possible Outlet for the North-west.

During the past summer the engineers of the Nelson River Railway Company have surveyed a railway route between Norway House at the outlet of Lake Winnipeg and Fort Churchill on the Hudson's Bay. The distance between these places is about three hundred and fifty miles. The surveyed route first follows the course of the Nelson River for a distance of nearly one hundred miles over a level country. The next part of the road is over a broken rocky country, where the Nelson River has a descent of nearly seven hundred feet to the lower plateau, where the country again becomes level, and continues so to Hudson's Bay. Upon entering this rocky range the surveyed route leaves the Nelson River, taking a more northerly course toward the valley of the Churchill River, which is reached at its entrance on the lower plateau, and continues to follow the course of the river to its outlet in Hudson's Bay. The estimated cost for building the road-bed is ten thousand dollars a mile on the plateau and seventeen thousand a mile through the rocky portion of the route, or an average of twelve thousand dollars per mile along the whole route.

It is claimed that by this route it will be possible to transport grain from the Saskatchewan Valley to Liverpool for less than it will cost to carry it to Montreal by the proposed railway north of Lake Superior.

Professor Bell, of the Canadian Geological Survey, who sailed from Fort York, Hudson's Bay, and passed through Hudson's Straits in the latter part of last September, says that sailing vessels have sometimes considerable difficulty as a delay in getting through, but steamships can make the voyage at any time between the first of May and November, as the straits are nearly one hundred miles wide in the narrowest part, and the channel is not obstructed by ice.

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.

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

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

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

PETERBOROUGH, Ont. APRIL 15, 1881

We received a special dispatch from Ottawa, dated the 11th instant, which says that McElbrym's sawmill is in operation with a gang of 75 men. This is the first opening of the season. Reports from the Upper Gatineau state that there are several feet of snow in the bush yet. The water is very low, and unless there are heavy rains within two weeks a great deal of pine timber will be stuck.

THE Northwest Lumberman says: The late opening of the season that the indications now promise will have a tendency to make business, when it does begin, very active. The mills will have to work hard to get out what they intend to manufacture, and the dealers will be equally busy receiving it, piling it up and selling it. The trade that has been kept back by the embargo on transportation will probably be heard from in the shape of plentiful orders when the blockade is raised, and this business added to that which may ordinarily be expected in the spring, will, no doubt, make the neighborhood of a lumber yard a lively place, in the course of two or three weeks. The prospect, altogether, is that a good business will be done as soon as it is possible to do it, and when it does come, the activity of trade will, no doubt, make up, in a great measure, for the enforced dullness of the earlier months of the year.

A CORRESPONDENT informs us that the wealthy and energetic firm of Messrs. Thomas Cundlo & Co. are making preparations to start their sawmill situated on the extensive limits recently acquired by them on Cockburn's Island, Lake Huron. These limits extend over 130 square miles, equal to about 150,000 acres, and are covered with a large quantity of pine, hemlock and cedar timber, which, if the logs at present in their boom may be taken as a fair sample, is of a very superior quality and which will, if properly manufactured, make A. 1. lumber. The pine is thin in the bark and singularly free from sap, while the cedar is said to be long enough to scaffold a church tower, and sufficient in quantity to fence Lake Huron. Being situated as they are on the direct line of steamboat travel between Chicago, Collingwood and the Welland Canal we are not surprised to learn that some of our American

cousins are casting a longing eye after them. We hope however that if Messrs. Cundlo & Co. do part with them they will fall into Canadian and not American hands.

A LUMBERMEN'S ASSOCIATION.

We have had several suggestions made to us by lumbermen, as to the expediency of regularly organizing a Lumbermen's Association, and have been urged to write in support of it. There can, we think, be little doubt that such an organization would be of great assistance and benefit to the trade. In fact the expediency and even the necessity of organizing has already been fully recognised, and has been acted upon. Not long ago the Ontario lumbermen met together to discuss questions of interest to them, and by means of a regularly appointed deputation called the attention of the Provincial Government to certain requirements of the trade. On that occasion they were successful in obtaining the concession of several important points, which would probably not have been so readily yielded to their individual and separate solicitation. So too the Quebec lumbermen last month collectively addressed the Administration of their Province, with some immediate good results and the promise of more. But in these cases the organization was only temporary, being allowed to lapse into disuse as soon as the immediate emergency was over, only to be renewed again under the influence of some pressing necessity. But this implies a great waste of time and energy with the minimum of advantage. If there were a permanently constituted association, it would always be prepared for consultation and action whenever, expedient, without waiting till some grievance became intolerable. In many other ways too besides dealing with the Government such an organization would be found useful by the trade. They are in fact so obvious that we need hardly point them out.

It has been suggested to us that an appropriate form for the organization would be in the shape of local associations with their committees and secretary to be established at the different lumbering centres, such as regards Ontario, as the Ottawa Valley, the Bay of Quinte, the Georgian Bay and Peterborough. These local bodies would have charge of the local interests, and would also unite in a Provincial association to deal with general questions.

The farmers, the dairymen, and many other industries find it expedient and useful thus to bind themselves together for common action and mutual consultation, so it seems very natural to assume that the great lumber and timber industry would benefit at least equally by adopting a similar course.

We hope that some of our readers, who are interested in this matter, will give their views of the best means of arriving at this result. We will gladly find space in our columns for a discussion of the subject.

A FOREST COMMISSION.

It is with much satisfaction that we observe that there is a growing manifestation of public interest in that very important subject, the preservation of our forests. One great proof of this is the frequent discussion of this matter recently in the columns of the press, which is a sure index to the direction of public opinion. In this number we give extracts from the *Globe*, *Mail* and other journals, and we might have given many more of a similar character, for we notice one paper after another, without regard to their political colour, calling attention to the threatened extirpation of our forests at no distant period, and to the necessity of husbanding our sylvan wealth.

We particularly invite notice to the article we have quoted from the *Globe*, and more especially to the last portion of it. We can heartily endorse its suggestion of a commission to enquire into the whole subject of forestry, for we believe it would be of the greatest benefit. The Agricultural Commission has collected and published much valuable information in regard to this matter, but much more is required, and the question should be looked at from other points of view. A commission especially appointed for this purpose, might for instance

obtain information and report upon the forest regulations and administration of other countries, thus being enabled intelligently to suggest such a modification of them as might be adopted by us with advantage under the special circumstances of this country. We have much to learn in regard to this, and we should not defer taking a lesson from other countries till it is too late.

TRANSPORTATION NOTES.

LUMBER FREIGHTS from East Saginaw, Mich., to Buffalo are expected to open at \$3. Saginaw Bay is still frozen solid in every direction as far as the eye can reach.

A SERIOUS break occurred in the Erie canal at Lockport when the two lower locks of the ten combined caved in and became a mass of ruins. It will be some time before the damage is repaired. The ten combined locks were completed on October 26th, 1825, and have long been looked upon as one of the finest pieces of masonry in the State.

THE statement has been made so distinctly that lumber shippers were willing to pay \$1.25 for cargoes from Toronto to Oswego, that it was considered there could be no doubt about it. A shipping firm sends a note to the *Globe*, however, stating that the *Jane McLeod* has been chartered to load lumber for Oswego, as soon as she arrives here, at \$1.20. The note contained the observation also that \$1.25 had not been refused. This may be strictly correct; but it would have been more explicit to have said that \$1.25 had not been offered. And, in any event, the statement is from one firm only; which leaves it quite possible that \$1.25 has been offered by other parties, which we believe to have been the case. The rate of \$1.50 is certainly far from being assured.

THE Chicago *Tribune* of the 5th has the following observations:—"Considerable enquiry for grain carrying vessels is developing. The shippers in the market do not care to pay over seven cents on corn to Buffalo, and as a rule carriers decline to accept this figure, being impressed with the idea that eight cents will be freely paid before navigation opens through the straits. Agents anticipate a good demand before the 15th inst., when the winter storage ceases. They agree with the owners of vessels that eight cents on corn to Buffalo may be obtained. On Friday Mr. Geddes chartered the Canadian schooner *Manzanilla*, through Messrs. Atkins & Coedwith, to load with 23,000 bushels of corn for Kingston. The agents decline to make public the rate allowed per bushel, but assure parties enquiring that it is better than has been paid to a Lake Ontario port prior to the opening of navigation for several seasons. They claim also that the freight allowed is better than seven cents to Buffalo. From other sources pointers have been obtained which seem to indicate that the *Manzanilla* gets about 11 cents per bushel."

BASS RIVER, N. B.

THE WEATHER.—Although not exactly accurate in all his predictions, Vennor has in some degree redeemed his credit by giving us on the North Shore a remarkably severe winter, with snows of unusual depth, and much broken weather. The log crop, however, in spite of these drawbacks, will be a fair one, both in quantity and quality.

LOSS OF LIFE.—A number of very serious accidents occurred, one by which Thos. Cail, one of our leading lumber operators, lost his life.

THE DRIVES.—The prospects for brook drives is excellent, and no doubt seems to be felt of the stuff coming down.

OUR LUMBERMEN.—Our leading operators in Kent are as nearly as possible in the following order:—George McLeod, S. & A. Dunn, J. & W. Brent, E. Walker, R. N. Doherty, J. Ford, Cail Bros., T. Curran, H. O'Leary, Thomas Coats, Robinson Bros., Peters Bros., T. & R. Atkinson, and W. Bowser.

THE STUMP ACT, ETC.—Some dissatisfaction is expressed at the way the stumpage tax is collected. It in effect offers a premium to successful fraud. An effort should also be made to stop the destruction of the hemlock now going on.

March 16th, 1881.

C. C. C.

SAINT JOHN, N. B.

STOCK OF LUMBER.—The stock of deals at this port is unusually low. In past years we generally commenced the winter season with a stock of sixty to eighty million superficial feet, whereas at the beginning of the winter just past, only about one-third of that quantity was held. Several cargoes have been shipped during the winter, and when the loading of the ships now in port (as referred to below) shall be completed, the stock will be pretty well exhausted.

WORK IN THE WOODS.—The past winter, upon the whole, has been favorable for lumbering operations, but was cut somewhat short by the uncommonly mild weather throughout the month of March, causing the lakes and streams to break up very early, and therefore shortening the work in the woods several weeks, curtailing the supply of logs to that extent, which will amount to a considerable quantity in the aggregate.

THE STREAMS.—The ice in the river had wasted to such an extent that it was expected to be clear by the 1st of April, but a sudden change in the weather to severe cold for the last ten days has so hardened the ice that it will probably not run out much earlier than the usual time, the latter part of this month. The great waste of snow and ice so early causes some uneasiness regarding the prospects for stream driving, and much will depend upon the rains at the right time as to the quantity of logs that may be brought to market.

FREIGHTS.—We have now in port two ships of over 1,500 tons register each, loading for Liverpool, two loading for other ports in England, and three for Ireland. Freight rule very low; one of the above ships is chartered at 56-3 c.d. for Liverpool, and another at 57-6 c.d. for Bristol Channel.

STANBRIDGE, MISSISSQUOI.

THE FORESTS EXHAUSTED.—The lumbering business in this vicinity is fast dying out. I stood by its cradle and should not need to live long to be at its funeral. The extensive pine forests on the shores of Lake Champlain and its tributaries, together with those along the banks of the Yamaska River, disappeared with a rapidity that leaves us nothing but regret. The first and best of this timber went to Quebec for a very low price, the last and poorest to New York. Then began the slaughter of hemlock and spruce, which, I think, we realized more from, than we did from the good pine. Nearly all the lumber we make now is for home use, but fifty miles or so north and east of here, we are told, that along the lines of the new railroads, our "brethren" are doing a smashing business. I say "brethren," for all my working days were spent in this line either as a laborer or proprietor in a small way. From long association with this industry, I have a fellow-feeling for all who are engaged in it. We are not the men who get up "corners" in wheat, coal oil monopolies, nor are we money changers, making nothing for use or luxury, but for all we ask of the public we give a fair equivalent. Every blow the axe-man strikes means some good to mankind, and every plank from the hands of the sawyer, the same. The "shanty-man" prefers honest labor to loafing round all winter in idleness or something worse. These are the true ring in every man engaged in our business. The operator, or even his subordinate boss, if need should be, are fit for generals. The management of Starks of Bennington, and Brown of Lundy's Lane, are cases in point.

E. CHANDLE.

RUSSIA.

From recent reports from the interior of the country we gather that, in consequence of the unusual quantity of snow in the forests this winter, it is doubtful whether the entire quantity of timber contracted for by the lumbermen can be prepared. The cutting and sledging of the timber are carried on with great difficulty. The frost continues severe at Cronstadt. The ice is thick and the snow deep, and the opinion of a late opening continues to prevail. — *Timber Trades Journal*.

HAGYARD'S PECTORAL BALSAM; a few doses relieves the most distressing cough, and a twenty-five cent bottle has cured many a sufferer from Asthma, Bronchitis, Croup, Influenza, Hoarseness and Soreness of the Chest. It is the grand specific for all throat and lung complaints leading to consumption.

Trade Notes.

DUTTON.—Mr. Daniel McKee, of Dutton, Elgin Co., Ont., has hardwood logs on hand equal to 400,000 feet for this season's cut.

SIMCOE.—Mr. A. McCall has two steam saw-mills in operation this season, and will cut about three million feet of pine and hardwood.

IONA.—Mr. Britton, Iona, County of Elgin, Ont., has leased his mill to Mr. McClaudross, who will cut about two million feet of hardwood this summer.

An exchange says:—Hall & Co's barges of Ogleburg have contracted to bring lumber to Oswego this season at 90c. a thousand, which is the same as they received last year.

PORT DOVER.—Mr. J. Jackson, of Simcoe, will raft about 7,500,000 of logs to Tonawanda from Port Dover. Mr. Wm. Tisdale, saw log contractor, Norrandale, will also raft 60,000 feet of pine and 60,000 feet of oak for Tonawanda.

BUFFALO parties have chartered three boats which will carry 1,750,000 feet of lumber each trip, and these boats will ply all the season between Pequaming, Mich., and Buffalo in the lumber trade. The charter is for \$3.87½ per 1,000 feet.

LAKE ST. CLAIR.—On the south side of Lake St. Clair, west of River Ruscon, and east to Stoney Point, there is now ready to be rafted for Detroit, about 3,000,000 feet of elm logs; 300,000 feet basswood logs; 100,000 feet white ash, besides a considerable quantity of square timber. The contractors are Messrs. Berry & Co., Moses W. Field, Salliot & Roup, and B. Hall.

At Saginaw lumber freights are expected to be much better than last season. There are 250,000,000 feet of lumber on the docks, a large proportion of which is sold to go forward, and should the season open late there will be a pressure for capacity to meet the requirements of the business. It is thought that freights will not open less than \$3.25 to Buffalo.—*Toledo Blade.*

LAKE ERIE.—Large quantities of saw logs and square timber are now in readiness at different points on Lake Erie to be rafted and shipped. Mr. S. Wigle, of Windsor, Ont., has taken out this winter, and has ready for shipment, 80,000 cubic feet of oak, about 4,000 feet of white wood, and 3,000 ties (equal to three vessel loads) from the County of Essex. In Michigan he has 50,000 feet of oak, and in Ohio 220,000 feet of oak, all to be shipped by vessel to Quebec and Europe. The Ohio oak will be shipped from Toledo.

The Montreal Gazette of April 2nd, says that Oscar Fulton, M.P., of the firm of Fulton & Wyatt, Avonmore, who is now in the city, we hear, has made sale to local manufacturers of 700,000 to 800,000 feet of basswood, black ash and soft elm on p.t. The current rates are, however, from \$10.50 to \$14.50 per thousand feet, f.o.b., at shipping point. Everything points to an extensive trade in lumber of all kinds during the coming season. Americans have been in the field making large purchases for some time past in the different lumbering regions of Canada as the requirements for the States this year it is said will largely exceed those of any former season.

The *Argus* comments as follows on the Albany market:—"We have not any change to note in the tone or the condition of the market for pine, hard, or coarse lumber. The shipments continue free, and the market is somewhat strengthened by the large quantity of lumber sold at Cambridge (Mass.) on Sunday last to the fire insurance companies. The market is more quiet than it was a week or ten days ago on account of the continued cold weather checking building operations, and thus keeping buyers out of market. The shipments of old and new sales are rapidly depleting our stocks, which will be at a very low figure before the canal will be opened for navigation; the opening this year, in consequence of the ungenial weather, will be later than usual, certainly not before May 1st, and it may be delayed to May 10th."

LUMBERMEN will be interested to learn that a new shanty cook-stove, manufactured by Adam Hall, Peterboro', is taking well wherever used.

BUSH FIRES.

THEIR DANGER AND DESTRUCTIVENESS—A SUGGESTIVE SITUATION.

A Kingston correspondent, "Agricola," writes very sensibly to the *Globe* on the subject of bush fires. His sentiments are entertained by many others, and hence the interest which attaches to the publication of his letter. His remarks:

An examination of the files of any paper published in the Province for twenty-five years will show that except in years of extraordinary rainfall the particulars of disastrous bush fires during autumn are given with remarkable yearly regularity; that the same charges of "carelessness" and "negligence" are preferred to account for them; and that year in and year out the one opinion is expressed that something should be done to prevent them. Unless this opinion amounts to a deep-rooted conviction that the destruction of property involved is something enormous, which is really the case, and that something must be done to prevent further havoc, the regular occurrence of autumnal bush fires will but serve to illustrate the law that the direst calamities are endurable if men are accustomed to submit to them.

I estimate the destruction, total at that, of standing timber and fuel—pine, hemlock, cedar, oak, poplar, tamarack, beech, and maple—in the county of Frontenac by bush fires during the past twenty-five years, at 50,000 acres. If now standing this would be worth at least half a million of dollars, and converted into square timber, sawn lumber, bark, ties, and cordwood, would be worth \$1,500,000. Frontenac has not been specially visited, Hastings, Addington, North Leeds, Lanark and Renfrew, and more or less the whole of the Laurentian region, so far as settlement extends, have suffered equally in Frontenac. It is within the mark to put the loss to individuals throughout the province at \$12,500,000 during the past twenty-five years. I do not take into account the loss to the public from the destruction of timber on the Crown domain.

It is utterly useless to grapple with the causes of this calamity by calling on the Government to inspect, prosecute, fine or imprison. The remedy is the obvious application of the principle that the member of a community is entitled to the protection of his goods and person by that community. Where the means of protection, owing to the defective administration of the law, are inadequate, the community should satisfy the damage done to a member. For example: The township will not hire night-watches to prevent my sheep being worried by prowling dogs, and if I must hire a night-watch I shall have no profit in sheep farming. I cannot detect the prowlers, but if I have my remedy for the destruction of my sheep against the township it will be my neighbor's interest to see that his tax bill is not made heavier by the possession of a cur. As the law now stands it is no concern of mine—that is, it is not my interest to visit a fire on my neighbor's farm for the purpose of seeing that he uses due precaution to prevent its spread, unless I have reason to apprehend danger to my property. If that danger passes me unhurt it is not within the scope of my duty to visit the fire to see that there is no chance of danger to another, else in a newly settled district I might find full occupation as a watchman for the community to the neglect of my own affairs. But if the value of the timber on a few hundred acres destroyed by fire were assessed on the township and collected from the ratepayers, there would soon be organized Vigilance Committees of the most efficient kind. There is another direction in which such a method would be useful. The fires caused by cinders from passing locomotives are known to be frequent. If my stables are burnt, and fires runs into my wood lot, it will pay me better to submit to the loss than to engage in a lawsuit with a wealthy corporation, who, not content with injuring me to the extent of \$50 or \$100 by their neglect to put bonnets on the smoke stacks and to erect wire fences, would drag me to the Supreme Court before they would "give in," and probably take away my farm from me to satisfy their bill of costs. The municipalities could better take up a case of this kind than a private person.

Unless rural communities are incited to action in the way pointed out, just as the inhabitants

of the English hundreds were made to see it was their interest to raise a hue and cry against a thief rather than bear a tax for his robbery, it is idle to hope for anything else than the permanent institution of autumnal bush fires.

Freights from Ottawa.

A recent dispatch from Ottawa says that the coming season of navigation, so far as rates are concerned, promises to be for the boat-owners the best which this section of country has seen for years, and forwarders are in correspondingly good spirit. The contracts already made are at good rates and the prospects is that the men not now employed will have all they can do at prices equally good if not better. At the present date it is not possible to tell in many cases what the opening of the season may bring, several transactions being now pending, which may change individual bargains. The carrying capacity of the various forwarders has been considerably enlarged, but the freight to be carried has increased in greater proportions, so that they virtually have matters in their own hands. If they do not become too greedy they will find all they can do as long as the season lasts. There can be no denial of the fact that boating this season promises, to those who understand the work, to be as great a bonanza as it used to be some 10 or 14 years ago. Several contracts have already been made for large shipments between this port and Quebec, New York, White Hall and Burlington. Murphy & Co. have closed for the transportation of a million and a quarter feet.

THAT Marvellous Purifier BURDOCK BLOOD BITTERS, will speedily change the sallow face to one of freshness, health and beauty. It regulates the Bowels, acts promptly on the Liver and Kidneys and strengthens the system when broken down by nervous and general debility. Ask your druggist for a trial bottle, the cost is only 10 cents. Large bottles \$1.00.

E. S. VINDIN,

Commission, Shipping, Forwarding and General Agent.

LUMBER MERCHANT

Office, Tempest's Block, Port Hope. L11

D. S. BRIGGS,

9 TORONTO STREET, TORONTO.

WHOLESALE DEALER IN

Clear, Pickings, Common and Hardwood Lumber, Lath, Shingles, &c.

BILL STUFF CUT TO ORDER. L12-1y

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OSWEGO, N. Y. L12-1y

JAMES HADDEN,

MANUFACTURER OF

Shingles and Dressed Stuff.

Foxmead, P. O., County of Simcoe, Ont.

Two Planers for sale or exchange for a Boiler. L26

Hotel Ottawa,

No. 21 North Side King Square.

ST. JOHN, N. B.

E. COSMAN, PROPRIETOR.

Terms \$1.00 to \$1.50 per day. L3

WANTED

A COMPETENT MAN, with thorough knowledge of Tram Railways, to go to Jamaica, to take charge of the laying and keeping in order the rails and road bed of a ten mile tramway, and when not employed to make himself otherwise useful. To a first-class competent man good salary will be paid.

Address, with references and salary expected, The Waterous Engine Works Co., Brantford, Canada. L412

To Lumbermen.

The Subscriber makes to order all kinds of

TENTS,

Hammocks, Tarpaulins, Waggon and Horse Covers,

Also dealer in all kinds of OIL SKIN Clothing, Nets and Seine Twines.

Am. Is also Agent for the best makes of AMERICAN COTTON DUCKS in all widths.

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White Oak and Ash

LUMBER WANTED.

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YATES AND STRATFORD,

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PORT HOPE.

New Files

Manufactured from the BEST English Cast Steel and Warranted equal to the Best Imported File.

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RECUT BY HAND, and EQUAL TO NEW FOR USE. PRICE LIST on application.

THOS. GRAHAM, Manufacturer,

35 Sherbourne St., Toronto. L11

THE RUSSELL HOUSE,

OTTAWA.

JAS. A. GOVIN, - - PROPRIETOR.

Is the Favourite Resort of Leading Public men of the Dominion attending the annual Session of Parliament.

Ministers of the Crown, Senators, Members of Parliament, Public Officials, as well as those having business with the various Departments of the Government. It is also the headquarters of those having dealings with the princely Lumber Manufacturers in the Great Pine Valley, of which Ottawa is the acknowledged centre.

THE RUSSELL HOUSE being central, almost abutting on the magnificent PARLIAMENT and DEPARTMENTAL BUILDINGS—the pride of the Country—is thus conveniently situated for those visiting the City on public business. But the location is also everything that could be desired alike for the man of business and the man of pleasure. A few minutes walk brings the guest of the Hotel within reach, not only of all the principal business resorts, but also of the most splendid Mountain and Valley Scenery that can be seen anywhere, as also of the two almost unrivalled Waterfalls—the Chaudiere and Rideau—and of the extensive Manufacturing Establishments and Depots of the leading Lumberman. But, besides the beautiful scenery, which, it may be mentioned, includes the magnificent Ottawa and two of its grand tributaries—the Rideau and Gatineau—there are in the immediate neighborhood, beautiful lakes and apparently never-ending woods, which afford opportunities for the finest Fishing and Shooting that can be obtained on the Continent.

THE RUSSELL HOUSE affords excellent accommodation for 300 guests. Its table is abundantly supplied with Viands of the choicest description, in season, and nothing is left undone to make every visitor feel comfortably "at home."

Omnibusses meet the Arrival of over; Train and Boat. L29

LUMBERING IN THE NORTH-WEST.

We take the following from the report of the Department of the Interior for the year 1880:—

THE TIMBER SUPPLY.

"Although it is, of course, an admitted fact that there are large prairie areas which are but indifferently provided with wood, yet the more the Territories are explored, the more apparent does it become that the timber supply is not so limited as was at one time supposed, that properly husbanded it is sufficient for all practical requirements, that within a reasonable distance of the treeless plains there is plenty of building and fencing timber which can be procured at no very great cost, when the means of internal communication have been improved, and that on the north slope of the valley of the Saskatchewan River there are, easily accessible to the lumberer, continuous forests of fir timber, for the manufacture and transportation of the products of which that river and its tributaries afford facilities.

"The demand for manufactured timber has increased very greatly in Manitoba and the settled portions of the Territories, and within the past two years a sub-branch of the Dominion Lands Office has been organized, under the supervision of which the forests on the public domain have been protected from the systematic plunder from which they previously suffered, and have become the source of a large and rapidly growing revenue."

THE SAWMILLS.

The following statement shows the names of owners of all the sawmills in Keewatin, Manitoba and North-west Territory, and where situated, kind of power, capacity per 12 hours, when erected, kind of timber cut, and kind of lumber manufactured:—

KEEWATIN.

Adams & Schneider, Pine Falls, Winnipeg River. Water power. Capacity 10,000 feet. Erected 1879. Spruce—Lumber, shingles and lath.

Walkley & Burrows, Mouth of Winnipeg River. Steam power. Capacity 6,000 feet. Erected 1878. Spruce—Lumber and lath.

Shore & Co., Big Black Island, Lake Winnipeg. Steam power. Capacity 8,000 feet. Erected 1876. Spruce—Lumber and lath.

Brouse, Stevens & Co., Bad Throat River. Water power. Capacity 10,000 feet. Erected 1879. Spruce—Lumber and shingles.

Dick & Banning, Whole River (moved from Sandy Bar Creek). Steam power. Capacity 6,000 feet. Erected 1879. Spruce—Lumber.

Brown & Rutherford, Moose Island, Lake Winnipeg. Steam power. Capacity 10,000 feet. Erected 1880. Spruce—Lumber.

Keewatin Lumbering & Manufacturing Co., Keewatin Mills, Winnipeg River. Water power. Capacity 120,000 feet. Erected 1880. Red and white pine—Lumber, shingles and lath.

Smart & Co., Hawk Lake, Keewatin. Steam power. Erected 1880. White pine—Shingles.

Joseph Whitehead, Whitemouth River, C.P.R. Steam power. Capacity 8,000 feet. Erected 1880. Spruce and tamarac—Lumber. Removed from St. Boniface.

S. H. Fowler, Fort Francis. Steam power.

MANITOBA.

W. J. M. Pratt, Totogon. Steam power. Capacity 10,000 feet. Erected 1879. Spruce—Lumber, shingles and lath.

W. P. Smith, Portage la Prairie. Steam power. Capacity 7,000 feet. Erected 1879. Poplar and oak—Lumber.

A. A. Taylor, High Bluff. Steam power. Capacity 10,000 feet. Erected 1874. Poplar and oak—Lumber and shingles.

Hon. C. P. Brown, Gladstone. Steam power. Capacity 5,000 feet. Erected 1875. Spruce—Lumber.

Wesley Smith, Section 33, Township 14, Range 11, West. Steam power. Capacity 5,000 feet. Erected 1880. Oak—Lumber and shingles.

David Bryce, Little White Mud River. Water power. Capacity 5,000 feet. Erected 1879. Poplar—Lumber.

John Moonie, Squirrel Creek. Steam power. Capacity 2,000 feet. Erected 1879. Poplar—Lumber.

Belmont & Co., Nelsonville. Steam power.

Capacity 6,000 feet. Erected 1879. Oak and poplar—Lumber, and flour mill.

Nelson & Sons, Mountain City. Steam power. Capacity 4,000 feet. Erected 1879. Oak and poplar—Lumber, and flour mill.

D. Kilgour, Lizard Lake. Steam power. Capacity 2,000 feet. Erected 1878. Oak and poplar—Lumber.

J. Preston, Preston. Steam power. Lumber. Hon. James McKay Estate, Point du Chene. Steam power. Capacity 6,000 feet. Erected 1876. Spruce and poplar—Lumber and flour mill.

Dick & Banning, Winnipeg. Steam power. Capacity 10,000 feet. Erected 1872. Oak—Scantling and building material, planing mill.

Brown & Rutherford, Winnipeg. Steam power. Capacity 10,000 feet. Erected 1872. All kinds—Scantling and planing mill.

Jarvis & Berrige, Winnipeg. Steam power. Capacity 25,000 feet. Erected 1872. Pine—Lumber and lath, and planing mill.

Daniel E. Sprague, Winnipeg. Steam power. Capacity 7,000 feet. Erected 1880. Pine—Lumber.

Josiah Cohoe, Section 19, Township 7, Range 7, East. Steam power. Capacity 2,000 feet. Erected 1880. Spruce—Lumber.

Abraham Frieser, Stinbach. Steam power. Capacity 4,000 feet. Erected 1879. Spruce and poplar—Lumber.

Peter Tows, Section 22, Township 7, Range 6, East. Steam power. Capacity 1,500 feet. Erected 1880. Spruce and tamarac—Lumber, (portable).

NORTH-WEST TERRITORY.

Robert McIntosh, Rapid City. Steam power. Capacity 7,500 feet. Erected 1879. Spruce—Lumber and shingles.

George Balkwell, Township 13, Range 19, West. Water power. Capacity 2,000 feet. Erected 1878. Poplar—Lumber and flour mill.

Alexander Cameron, Rolling River, Township 16, Range 18, West. Water power. Capacity 6,000 feet. Erected 1878. Spruce and poplar—Lumber.

D. W. Cummings & Co., Bird Tail Creek, Birtle. Steam power. Capacity 6,000 feet. Erected 1880. Spruce—Lumber and shingles.

Donald Gunn & Bro., Bird Tail Creek, Birtle. Water power. Capacity 2,000 feet. Erected 1880. Spruce—Lumber.

E. Roberts, Little Saskatchewan, Big Bend. Steam power. Capacity 6,000 feet. Erected 1880. Spruce—Lumber and shingles; building flour mill and planing.

Armitage & McCulloch, Little Saskatchewan, Minnedosa. Steam power. Capacity 6,000 feet. Erected 1880. Spruce—Lumber and shingles; flour mill.

Hon. Hudson's Bay Co., Riding Mountain House. Steam power. Capacity 3,000 feet. Erected 1880. Spruce—Lumber; building flour mill.

Mitchell, Byers & Co., Section 23, Township 10, Range 16, West. Steam power. Capacity 3,000 feet. Erected 1880. Spruce and tamarac—Lumber.

W. McKay, Section 23, Township 10, Range 15, West. Steam power. Capacity 3,000 feet. Spruce—Lumber.

R. H. Little, Littleton. Steam power. Capacity 4 to 5,000 feet. Poplar, spruce and tamarac—Lumber; building flour mill.

R. Z. Rogers, Millford. Steam power. Capacity 5,000 feet. Erected 1880. Spruce—Lumber; building flour mill.

Stebart, E ten & Co., Duck Lake, North-west Territory. Steam power. Capacity 5,000 feet. Erected 1880. Pine, small Lumber and shingles; flour mill (portable).

Captain Moore, Prince Albert, North-west Territory. Steam power. Capacity 10,000 feet. Erected 1875. Spruce—Lumber and shingles; flour mill.

Hudson's Bay Co., Edmonton, North-west Territory. Steam power. Capacity 10,000 feet. Erected 1880. Spruce—Lumber and shingles.

Morris, McLeod & Belcher, Two miles east of Edmonton, N.W.T. Steam power. Capacity 10,000 feet. Spruce—Lumber, shingles and lath; flour mill.

Government Mill, Sixty miles west of Edmonton, N.W.T. Steam power. Idle.

Williams & Harrison, Section 29, Township

1, Range 18, West. Steam power. Capacity 5,000 feet. Erected 1880. Poplar—Lumber.

D. McFayden, Odanah. Steam power. Capacity 5,000 feet. Erected 1880. Spruce—Lumber and shingles; planing mill.

A NEW HEATER.

The latest apparatus for heating purposes is the invention of Prof. Webster Wells, Professor of Mathematics in the Massachusetts Institute of Technology:—

The principle of this machine is friction, and the simplicity of construction and adaptability to every place where waste power can be utilized are remarkable. It consists only of an iron cylinder, 2 feet long and 1 foot in diameter, having a fixed plate of hardened iron in one end, and a second plate, attached to a revolving shaft, which presses lightly or closely upon the fixed plate, as circumstances require. The cylinder is filled with water, the shaft revolves, and from the friction of the plates the water in an incredibly short time is heated, and by means of steam pipes can be carried to great distances for heating purposes.

The construction of the machine is such that it is easily adapted to every place where there is waste power, as in mills, factories, public buildings, and cars. In fact, in every place where any power is used the machine can be applied, since the power required for its operation is so slight as to be of almost no account. Thus, to carry a machine with 36 square inches of friction plates—the ordinary size—one-half horse power only is required; while a machine with 225 square inches of friction surface will require at most but four horse power, and will heat a room 60x200, or 126,000 cubic feet. In steam cars the machine is easily and cheaply adjusted to the axles, the power being taken directly from the wheels, so that in case of accident, such as started the train of thought which resulted in this invention, all danger from fire is entirely eliminated.

This machine has already been in practical operation for some months, and has demonstrated that with 36 inches of friction surface a room of 10,000 cubic feet can be heated more uniformly and quicker than by the use of coal, wood, or steam, and without expense save the wear of the friction plates and the cost of extra coal under the boiler.—*American Engineer.*

THE STAMPAGE TAX.

The *Newcastle Advocate*, which improperly calls Mr. George McLeod's letter a "rabid" one, says in defence of the conduct of the Surveyor General:—

"It is well known that as a rule lumber operators are very much opposed to the payment of the stampage tax, looking upon it as a grievance, and that to further their own interests they sometimes form a 'ring' to keep down the prices of the lands bid in by them. Even though Mr. McLeod's charges are true, (which we shall not believe until they are substantiated in the proper quarter), we ask if it is right for a number of men to combine to lessen the value of our Provincial lands—our best source of revenue—would it be looked upon as wrong for those interested in the welfare of the Province—those charged with the duty of administering its affairs—to step in and break up such a combination?"

This does not meet, explain, or deny Mr. McLeod's most damaging statement against the Surveyor General's honor, to the effect that he (the S.G.) told McLeod that some parties had applied for his land and that he forgot their names, when it appeared as a matter of fact that there was no such application. Further than this when the Government put their own upset price on the land it is a most dangerous thing for them to bid on the land themselves over and above that price.—*St. John, N.B., Globe.*

The Ottawa District.

The *Hull Dispatch* speaking of the lumber trade, estimates the cut of logs in the Ottawa district at 12,000,000, or an increase of 33 per cent. on last year's operations. The cut of square timber last year was only 2,000,000 feet, but this year it will probably be 12,000,000. Raftsmen are very scarce this spring and some difficulty will be experienced in getting a sufficient number for the drives.

IMPROVED DRYING KILN.

A cheap and economical apparatus for drying lumber, staves, and other material, has been long needed, and a great deal of time and money has been expended in experiments in this direction without corresponding results. Messrs E. & B. Holmes have perfected a dry kiln which seems to combine all the necessary requisites for a successful drying apparatus.

This dry kiln is composed of several sections, more or less as desired. In the bottom of each of these sections are placed two sets of steam coils of novel construction, one above the other, for radiating the heat, and on the side of each section is a thin apartment containing condensing pipes filled with cold water, supplied by a pump or otherwise.

The air in the bottom of the kiln, being heated by the steam coils passes up through the material to be dried, to the top of the kiln, carrying the moisture with it. Here it enters the thin condensing apartment and passes down, leaving the moisture upon the condensing pipes, and, being cooled, again passes downward under and through the steam coils, where it is reheated, when it again rises up through the material, and so on. In this manner a very rapid circulation is secured, which carries the moisture from the material to be dried and deposits it upon the condensing pipes, from which it runs into a conductor and passes out of the kiln, the same air being used over and over.

Car tracks pass through the kiln, and extend far enough in each direction outside of the kiln to allow of loading, drying, and unloading at the same time. In this way the kiln is kept open long enough to pass one car out and another in, and as only one section is opened, the others are not affected or cooled by it.

The doors of the kilns are made double thickness with an air space between, and are swung on cranes, so that one person can handle them with ease.—*Scientific American.*

A SINGULAR CASE.

From the *Woodstock Times* we learn that a rather singular case was before the Police Court in that place on Tuesday, 29th March. John Dobbyn, of the Township of Euphemia, in the County of Lambton, who is an extensive lumber dealer, preferred a charge against John W. Adams, of Ingersoll, alleging that he had stolen three car loads of lumber. A warrant was issued and placed in the hands of Constable Hall, with instructions to hunt down his man, which he succeeded in doing before daylight the next morning in Ingersoll. The examinations showed that at a conversation between prosecutor and prisoner, the latter was to meet Mr. Dobbyn at Thamesville, in the County of Kent, to cull over three car loads of lumber, which he was to buy for James Stark, of Ingersoll, representing himself as Mr. Stark's agent. At the time appointed, the parties met, but the cars did not come. They separated with the understanding that as soon as prisoner could get cars he would telegraph to Mr. Dobbyn to meet him again, when they would cull, measure and load the lumber. Some days after Mr. Dobbyn accidentally learned that prisoner had been there without letting him know, and had taken away three car loads of his lumber. Upon further inquiry he found that prisoner had shipped the lumber to his own order, and on tracing the matter up he found that two car loads had been sold to one Hays, of Ingersoll. The prisoner was committed to Chatham jail to await his trial for larceny.

Birch for Cabinet Work.

The small value of birch wood for fuel, and its lack of toughness and strength, except in the smaller twigs, have led to its general neglect in the arts. Our more enterprising builders of railway cars, however, have discovered that its light weight, close grain, and rich finish make it admirably suited for certain applications where fine finish and bright effects are desired. The contrasts presented when white birch and light colored ash are relieved by the red of the cherry birch, are said to be peculiar but very pleasing.

The growing trade in Maryland in the shipment of ivy and swamp-briar roots to the northern cities, where they are made into pipe, whip and cane handles and poor knobs,

A Grill mat? The Sarge camp A C ed a the bi Lis mont, The n en ha: Tri no fe estate veries THE now r tember being l SKU Michi. kidded have b The expect reason. logs i fire ye: In h mills or for wan This y lgs, an OREN Island, 91,000 c 000 tel sides la ROK other d diameter from th gun, sto posed, g THE traffic o: It is sai men fro in its hi: the men ALL C this year Slide, D that the despat: steambo past. THE b something shan in thous: Some of nounced for raffin Mr. D of the 1 Canada, on the (70,000 fe of staves. this mat: THE lu on the ra in weigh feet, at 516,000 f Man who any other A CUP Menomin scaled 4,5 tied his a to the tw tween tw away. THE St. Free Press is being fo and to suc this reason

Chips.

A MATCH FACTORY has been established in Gridley, Cal., with a capacity of 1,000,000 matches daily.

THREE black bears were killed on March 14, at Sargent & Pendleton's, Beaver Creek, Wis., camp, one of which weighed 400.

A GENTLEMAN of Pensacola, Fla., has patented a timber crib designed to prevent loss from the breaking asunder of timber rafts.

LESS timber than was expected reached Beaumont, Texas, on the recent rise in the river. The mills now have about a four months' stock on hand.

It is said that the late Lord Seafield planted no fewer than sixty millions of trees on his estates in the counties of Elgin, Banff, and Inverness during his tenure of them.

THE Duluth News says that the mills that are now running in that vicinity are so busy that timber for the new Northern Pacific docks is being hewed instead of sawed.

SKIDDING has been so difficult in some of the Michigan pineries, that gangs that before have skidded 100 logs or more per day, this season have been able to skid but from 25 to 30.

The mills of Stillwater, Minn., and its vicinity expect to cut 132,000,000 feet of lumber this season. The general quality of their stock of logs is said to be above the average of four or five years past.

It has not been an unusual thing for the mills on the Penobscot River, Me., to be idle for want of logs until the spring drive got down. This year the mills have a good stock of old logs, and will get an early start.

OPERATORS in the woods of St. Joseph's Island, Canada, during the past winter, got out 91,000 cedar railway ties, 45,000 cedar posts, 11,000 telegraph poles, 40,000 tamarack ties, besides large quantities of pine and hardwood.

ROBERT BOGART, of Pittston, felled a tree the other day which was about eight inches in diameter. Hanging to a limb about thirty feet from the ground he found a very old fashioned gun, stocked full length, and which, it is supposed, grew up with the tree.

THE Montreal Witness says:—Passenger traffic on the Grand Trunk is now very heavy. It is said that it is now carrying more lumbermen from Michigan to Canada than ever before in its history. The camps are breaking up and the men are returning to their homes.

ALL the log driving on Muskoka rivers will this year be under the control of the Muskoka Slide, Dam and Boom Co., and it is expected that the logs will be passed through with more despatch than heretofore and not obstruct steamboat traffic to the extent they have in the past.

The business in timber at Hamilton will be something enormous this spring. Several rafting shanties are being erected and binding poles in thousands are piled along the G. W. R. docks. Some of the timber there at present is pronounced the finest that has ever been laid there for rafting purposes.

MR. D. B. CHARLESON, of Sarnia, who is one of the heaviest lumber dealers in Western Canada, has had delivered at Bridgen station, on the Canada Southern, for shipment east, 70,000 feet of square timber and a large number of staves. It will require 250 cars to convey all this material to its destination.

The lumber and forest products transported on the railway of Minnesota in 1880 amounted, in weight, to 710,863 tons, and if reduced to feet, at three pounds to the foot, would be 177,516,000 feet. To St. Paul, Minneapolis & Manitoba road carried a greater amount than any other one.

A CHOPPER, James Melville, employed on the Menominee river, Mich., lodged a tree that scaled 4,500 feet on another tree 20 feet away, tied his axe to his waist and climbed the tree to the height of 80 feet, where, standing between two limbs he cleared the obstruction away.

THE St. Thomas correspondent of the London Free Press says that a large quantity of timber is being forwarded from this section, at present, and to such an extent has the business reached this season that two timber trains are constantly

working on the Air Line Railway, both east and west of this city. A large force of men is employed, an average of twenty cars per diem being loaded by each train.

A PARCEL of 2,000 doors, which were sent to London from Canada via Boston for the Canadian timber company, were disposed of readily; the quality being reported as very satisfactory. Another lot was expected in a few days and a large business in the doors is expected during the forthcoming season.

A GREAT deal of work for Manitoba is being done in the factories in Hamilton. The firm of Robin & Sadler is exhibiting here a unique specimen of their belt manufacture, which they have made for a sawmill of the Hudson Bay Company. It is claimed to be the first belt made in Canada in one solid piece in the breadth throughout. Owing to its uniformity of strain and greater durability, it ensures freedom from accidents. It is thirty-six inches wide by 88½ feet long, and required in its manufacture fifty selected hides.

THE Goderich Star says that Mr. Joseph Kidd bought at Georgian Bay, a few days ago, 3,000,000 feet of pine logs, ready to be boomed and brought down as soon as navigation opens. He has also about 1,000,000 of hemlock, elm and basswood, up along the shore. These he intends bringing down by his new boat, the Josephine Kidd. He is about to have the telegraph wire extended to his office at the works, as soon as the frost is out of the ground. It will be of the greatest convenience, since his son commands the electric key.

THE Grand Traverse Herald says: There has been an unwonted activity in the cedar market this winter. This is a timber that has hardly had a "market" yet, but the near future will open up one for it. Cedar timber is to-day, at the prices at which it can be bought, the best investment to be had in the timber line. Northern Michigan has a mine of wealth in its low lands covered with this, now seemingly worthless, timber. Lumbermen and manufacturers are already directing their attention to this matter.

A RECENT despatch from Albany, N. Y., says: "A large amount of lumber has left the yards during the week, employing all the boats and barges that have arrived there. A steady demand has been realized, and still continues. The yards begin to show the effect of the shipments when no arrivals by canal fill the vacant spaces. There is still a fair amount of nearly all kinds for sale, without any change from the opening prices, but the probability is that the yards will be nearly bare before receipts by canal will again give new stock and assortment."

THE Indian Agriculturist states that Messrs. Shaw, Finlayson & Co., of Calcutta, are desirous of starting a sawmill in the Upper Dehing Forest, and the Planters' Stores Company are going to establish one also in the same locality. Sir Steuart Bayley says of these:—"The establishment of sawmills, two of which it is hoped will very shortly be opened in Upper Assam, should create a demand for timber suitable for tea boxes, and thus replace with indigenous produce, to the profit of the province, the present expensive and circuitous method of importing teak planks for the purpose from Burmah. Scarcity of local labor, not want of good wood for tea boxes, is the sole explanation of the latter, and the mills, if judiciously worked, should do a good business."

THE Farwell Register says: There was unloaded at this place last week a new logging railroad engine for Norris & Uhl, of Grand Rapids, to be used on the new logging railroad about 15 miles north of this place. This engine was placed on runners and was drawn by four span of horses up the Ionia and Houghton Lake State road to the Gerrish railroad, and from thence again on runners to Norway Lake, T. 18 N. of R. 5 W., where the new road commences and runs to the Muskegon river, a distance of three miles. Norris & Uhl, as agents for the Warren estate, have about 45,000,000 feet of logs to put in in the vicinity of Norway Lake. The logs are put in to the lake, and from thence hauled by the engine to the Muskegon river.

THE Lumberman's Gazette says:—One and a half million feet of logs for the lumber manu-

facturers of the eastern shore of Michigan to begin work on when the cutting season opens, is about the outlook. By which it is not meant they will all be in the booms, but the log crop, all told, from the Straits to the Saginaws, will amount to about that sum. The crop will not be a cheaply got in one, for not only have wages been higher, but the labor of hauling has been increased, especially toward the latter part of the season, since there began to be so much snow. The addition to the cost of getting in the logs is estimated all the way from 10 to 25 per cent. The new cut of lumber ought, therefore to bring more than the old, but there will be no advance unless the market warrants it.

MAINE'S LUMBER TRADE.

The logging season will come to a close next week. A Penobscot lumberman says there are still two and a half feet of snow in some parts of the woods, but the brooks are rising rapidly and overflowing the roads, driving the loggers out. About two-thirds of the West Branch operators are out and the rest are coming. The cut on the Penobscot and tributaries will be about 140,000,000. Orders are moderately plenty, and it is expected that the demand will soon be large. Freights are fair; we notice one charter to Boston at \$1.60 per M. on lumber and \$2.50 per M. on bricks. Considerable short lumber has been shipped to Boston by rail this winter, but now the natural channel is open and brisk times are looked for soon. The lumber mills on the Penobscot are starting up. The 20,000,000 of logs now on hand on the river will suffice to keep them busy until the new logs arrive. The large boom on the "Saco" about a mile up the river, will soon be filling up with about 15,000,000 feet of logs cut during the winter. Of this amount 12,000,000 feet comes to Joseph Holborn of Biddeford.—St. John Globe, March 28.

THE SONG OF THE SAW.

BY J. W. FITZMAURICE.

A song, a song for the millman's saw,
That whirls with endless din,
Bringing work and wealth to the sons of toil
With its busy whirl and spin.
Though others may boast of the loom or plough,
We value them not a straw,
For our daily strife in the battle of life
Is fought by the millman's saw.

It gives no theme for the poet's dream,
Nor story nor song does it mean;
But the pioneer's saw in the foremost rank
Of the world's grand march is seen.
The forests so brown, at its whirl go down,
And cities spring up where they fell;
While work well done, and wealth well won,
Is the record it loves to tell.

So a song for the saw, the millman's boast,
Our emblem honest and good;
We sing to the din of its noisy spin,
Our lay as workers in wood;
The slaves of the lamp, the forge or the mine,
Must follow wherever we draw,
For ours still is the place, to be first in the race,
That is won by the whirl of the saw.

Why Ice Breaks Down Trees.

A gentleman recently had his curiosity aroused while the trees were covered thickly with ice, as to the relative weight of the ice and the wood it surrounded. So he cut off a limb, and found it weighed two and three-quarter pounds; after the ice was melted it weighed two ounces. Two hours later another trial was made; at first the limb weighed four and a half pounds; after the ice was removed it weighed three ounces. Another trial showed a weight of thirty-two pounds, while the limb alone weighed two pounds, making thirty-two pounds of ice.

Deserves Success.

THE CANADA LUMBERMAN has become the property of Messrs. Toker & Co., publishers of the Review at Peterborough. Its typographic appearance and general make-up is a great improvement on what it was previously, while the information it contains is of much interest to all in the lumber trade as well as commercial men generally, being devoted to trade matters. The LUMBERMAN is made up in pamphlet form, 16 pages, and will be published semi-monthly at \$2 per annum. It deserves success.—Ontario Free Press.

Advertisements.

Wanted.

A SECOND HAND DOUBLE EDGER, also a LATH MACHINE, both in good repair. Reply stating lowest cash terms or particulars to Box 1002, Peterborough 110

For Sale.

A 40 INCH LEFFELL WHEEL and COMPLETE CIRCULAR RIG, all in good order, suitable for a fifteen foot beam. Apply to Box 1002, Peterborough. 110

Reid & Co.,

WHOLESALE LUMBER DEALERS. Lumber, lath, shingles, &c. Car lots to suit customers. Best Culls in the market at from \$6 to \$7 per M. Office on Dock—Esplanade, foot of Shelburne Street, Toronto b15

Hardwood Timber Land

FOR SALE. 1200 ACRES HARDWOOD TIMBER LAND near Nipissing Railway, Cobocook. Easy terms. OSHTAWA CABINET CO., Oshawa. b13

Timber Limits for Sale.

SEVERAL MOST VALUABLE TIMBER LIMITS on North Shore of Lake Huron. For particulars apply to THOS. SHORTISS, Imperial Bank Building, Toronto. b12

Situation Wanted.

A Book keeper of first class experience desires a situation with a lumber firm. An opportunity of acquiring knowledge of the lumber trade more of an object than the amount of salary. Unexceptional references both as to character and ability. b15 Apply to the Editor of THE CANADA LUMBERMAN.

The Stewart House,

Headquarters of Lumbermen in Peterborough, corner of Hunter and Water Streets. Good accommodation. Terms, \$1 per day. Free bus at trains. b15 T. CAVANAGH, Proprietor.

Allandale Junction Hotel

Travellers by Northern Railway have 15 to 20 minutes by all trains, for refreshments. Solid meals. Tea and coffee at counter. Fine brands of Liquors and choice Cigars. b17 E. S. MEERING, Proprietor.

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 b25 WM. MACKIE, Proprietor.

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

Fraser's Hotel,

GRAVENHURST, ONT.

HENRY FRASER, proprietor, (successor to Douglas Brown.) Mr. Fraser having purchased and thoroughly renovated and refitted that old established hotel, so long and popularly kept and owned by Douglas 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. b29

Market Reports.

OFFICE OF THE CANADA LUMBERMAN,
PETEBOURGH, April 12, 1881.

Although the spring movement has hardly begun yet, owing to the lateness of the season, the demand from the United States is good and most shippers have large orders to fill.

Montreal.

Table listing lumber prices in Montreal, including items like Ash, Basswood, Black walnut, Cedar, and Spruce with their respective prices.

Chicago.

Chicago, March 30, 1881.—While the weather during the past week has been an improvement on that which has prevailed for several weeks previous, it has not brought the much needed relief in the melting of snow and the clearing away of obstructions to the successful prosecution of business.

We hear no one ventures to express a hope that the first cargo will, this year, put in an appearance before the middle of April, and few look for any arrivals before May 1, and it is hardly probable that navigation will be fully open before the middle of that month.

STOCK ON HAND MARCH 1.

Table showing stock on hand for March 1st, listing items like Lumber, Shingles, Lath, Pickets, and Cedar posts with their quantities.

YARD QUOTATIONS—CAR LOTS—DRY.

Table of yard quotations for car lots, listing various lumber sizes and their prices.

Table listing lumber prices for various sizes and types, including Culls, Small timber, and Shingles.

Table listing prices for SHINGLES—10-INCH—DRY—CAR LOTS, including Clear, Extra A, and Standard A.

Table listing prices for PICKETS—LATH, including Flat, select and clear, d. and h., and Square, d. and h.

Table listing prices for CEDAR POSTS AND POLES, including Sawed and 4 in. round, full length.

Albany.

Table listing quotations at the yards for Albany, including Pine, clear, P.M., and Pine, fourths.

Oswego, N.Y.

Table listing prices for Oswego, N.Y., including Three uppers, Pickets, and Common lumber.

Tonawanda.

Table listing prices for Tonawanda, including Three uppers and Common lumber.

Glasgow.

It will be observed from the import list that our market continues to be well supplied with pitch pine, about 3,000 loads having arrived at Clyde ports during the past week.

Table listing lumber prices for various sizes and types, including 10 to 25, 15 to 18, and 14 to 17.

Liverpool Timber Sales.

On Wednesday last Messrs James Smith & Co. held their auction sale. There was a numerous attendance, both at the sale and at the luncheon which preceded it.

The hewn pitch was offered first, but did not meet with much demand, and only about 70 logs out of 168 were sold at from 16d. to 19d. per ft.

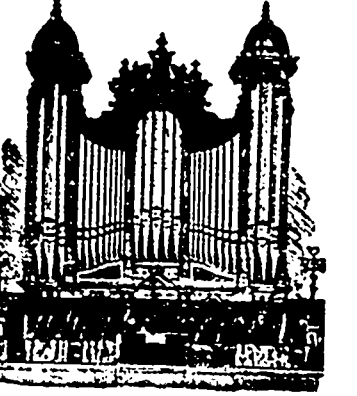
Table listing prices for The Richibucto spruce deals, including 15 to 24 ft. 3x11 and 12 to 14 ft. 3x11.

The goods offered without reserve sold as follows: Spruce deals, Bay Verte—15 to 19 ft. 3x11, 10 to 14 ft. 3x11.

Quebec 2nd pine deals, 9 to 16 ft., chiefly 3x11, 13 and 14, £14 10s. to £14 12s. 6d.

HEADACHE.—Why become a suffering martyr to Headache, when BURROCK BLOOD PURIFIER will surely cure the cause of all varieties of Sick and Nervous Headache.

S. R. WARREN & SON, Church Organ Builders.



Specifications and all information promptly furnished on application. Factory and Warerooms. Corner Ontario and Wellesley Streets TORONTO, ONT.

KERR BROS. PRACTICAL FOUNDERS, MACHINISTS And MILLWRIGHTS.

Manufacturers of Marine and Hoist and Portable Engines, Boilers, Gr. Elevators and Steam Hoists, Saw and Flour Mill Machinery, with latest improvements, a specialty.

The Abel Edwards's Centennial Turbine Water Wheel. Rodabaugh's Saw Frame, Mill Dogs and Saw Guides. Water-works, the latest and most improved, made to Order.

The Walkerville Foundry AND MACHINE WORKS.

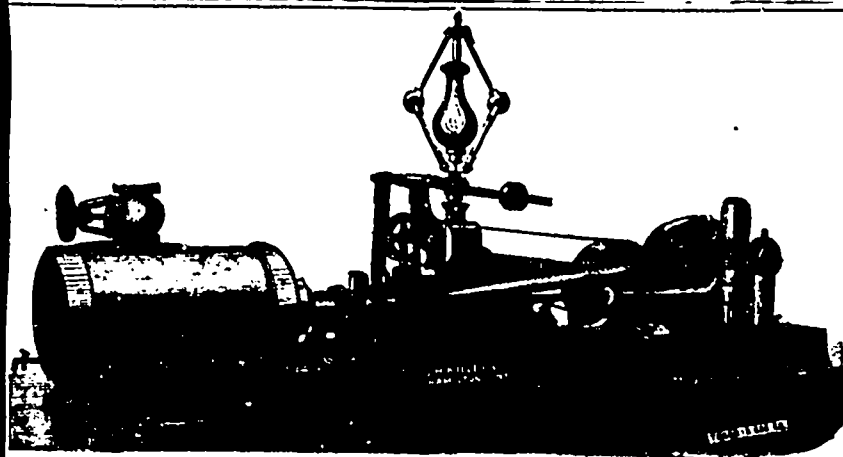
Walkerville, Ont., Dec., 1880. W. H. STOREY & SON, ACTON, ONTARIO. GLOVE MANUFACTURERS.



Turned and coloured a specialty. 425 MEEHCHAUM and AMBER GOODS repaired in first-class style. 77 1/2 King St. West, Toronto, Ont.



The UNIVERSAL SUSPENDER. SOME REASONS why they are the best: 1st—No Elastic required. 2nd—Is slack when stooping. 3rd—It never slips off the shoulders. 4th—Sold at prices of common suspenders. Manufactured by C. E. RAMAGE & CO. 20 Queen St. East, Toronto.



MONA IRON WORKS HAMILTON, ONT.

J. H. KILLEY & CO.

Manufacturers of Economical, Variable, Cut-off, High Pressure, and

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Patent Circulating and Self-Cleansing Boilers, Improved Feed Water Heaters and Patent Steam Blast Apparatus for Improving Draft and Economizing Fuel.

First-class Grist & Saw Mill Engines and Machinery

STEAM ROAD ROLLERS and STONE BREAKERS. 61.12

BRYCE BROTHERS.

Lumber from BRYCE BROS. to Build the Canada Pacific Railway!

Office and Yard:
Cor. Berkeley & Front Sts.

TORONTO.



Saw Mills:
Elmville, Ontario.

Planing Mill:
57 Ontario Street.

BLAKE—"It looks like good, clear stuff. It strikes me it is about the only clear thing in the whole business."

LUMBER MERCHANTS.

61.12

The Largest Manufacturers of

SHEET IRON ROOFING

IN THE UNITED STATES.

Can give the Best of References in every State and Territory.

POTTER IRON ROOFING COMP'Y,

101, 103 and 105 West Front Street,
CINCINNATI.

All kinds of CORRUGATED IRON Furnished.
Send for Illustrated Circulars, naming THE CANADA LUMBERMAN. 12.11



HACYARD'S PECTORAL BALSAM.

Has no equal for the permanent cure of Coughs, Colds, Sore Throat, Asthma, Croup, Whooping Cough, Bronchitis, and all Lung Diseases. Every bottle guaranteed to give satisfaction. J. MILBURN & CO., Proprietors Toronto.

M. BRENNEN,

MANUFACTURER AND WHOLESALE DEALER IN

Lumber, Lath and Shingles,

63, 65 and 67 King William Street,

HAMILTON, ONT.

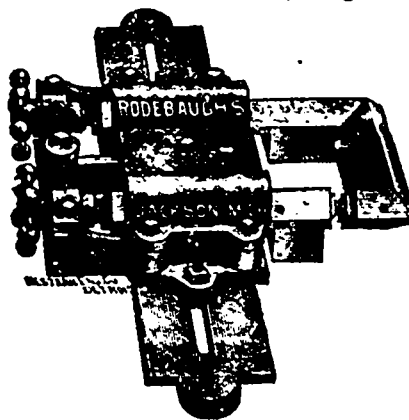
MILLS AND TIMBER LIMITS AT SILVER CREEK, TIAGO P. O., ONT.

Bill Stuff cut from 10 to 60 feet. Cedar Posts on hand.

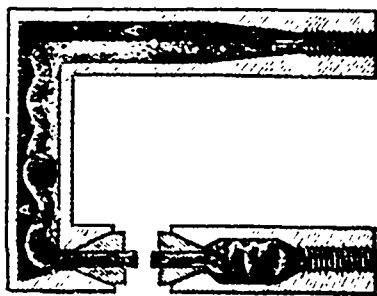
Orders sent to M. BRENNEN, Tiago, P. O., will receive prompt attention 615

SAW GUIDE!

Self Oiling—Ready Adjusting.



G. W. Rodebaugh's patent Saw Guide will recommend itself to every practical sawer. All that is required is a trial.



No heating of Saws. No danger in setting. Trial free of charge. The whole complete only \$25. Manufactured in Canada by

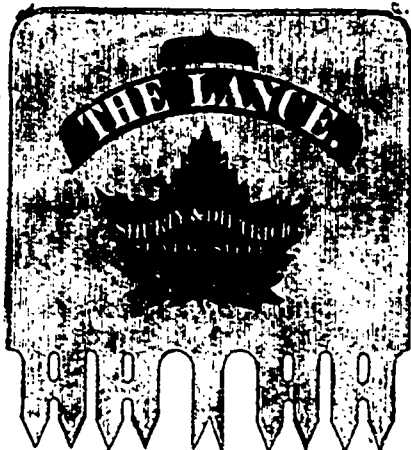
KERR BROS., Walkerville, Ont.

who may be applied to for further particulars; or address:

G. W. RODEBAUGH & CO.,

WINDSOR, ONT

THE GENUINE SILVER-STEEL, Lance Tooth CROSS-CUT SAW!



It stands without a rival, and is the fastest cutting saw in the world. It has beaten the best Canadian and American made saws 33 per cent in every contest. Its superiority consists of its excellent temper. It is tempered under the secret Chemical Process, which toughens and refines the steel. It gives a finer and keener cutting edge, and will hold it twice as long as any other process. We have the sole right for this process for the Dominion of Canada.

None genuine that are not like the above cut, with registered trade mark with the word "The Lance," and Maple Leaf with our name. Price \$1 per foot.

CAUTION.—Beware of Counterfeits. There are inferior counterfeits on the market, which are intended to be sold at a high price upon the reputation of this saw. We will send to any address a saw exactly like any counterfeited, warranted equal in quality or no sale, at 60c per foot. Therefore do not be humbugged into paying a first-class price for a second-class saw. A fact to bear in mind is that if the material and temper are not of the very best quality the shape of the teeth amounts nothing. A saw, like a knife, will not cut fast without it will hold a keen, cutting edge. We have cut off a 14-inch round hardwood log in eight seconds with this saw. Manufactured only by

SHURLY & DIETRICH,

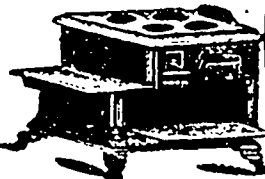
Manufacturers of Saws, Plastering Trowels, Straw Knives, &c. &c.

GALT, ONTARIO, 615

OTTON & BRO.

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SHANTY STOVES,

Shingle Bands, Tinware & Household Furnishings

In Large or Small Quantities, at Wholesale Rates.

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MANUFACTURED AT

The Canada Scale Works!



These Scales are Manufactured of the Very Best Material, and warranted to give satisfaction. Send for Prices and Testimonials.

JAMES G. WHITE & CO.

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To ENGINEERS

Saw Millers, &c.

THE

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Is undeniably the BEST BOILER FEEDER IN THE WORLD. Can be operated while the Engine is at rest. All sizes will lift water Twenty-five Feet, at comparatively high and low Temperature.

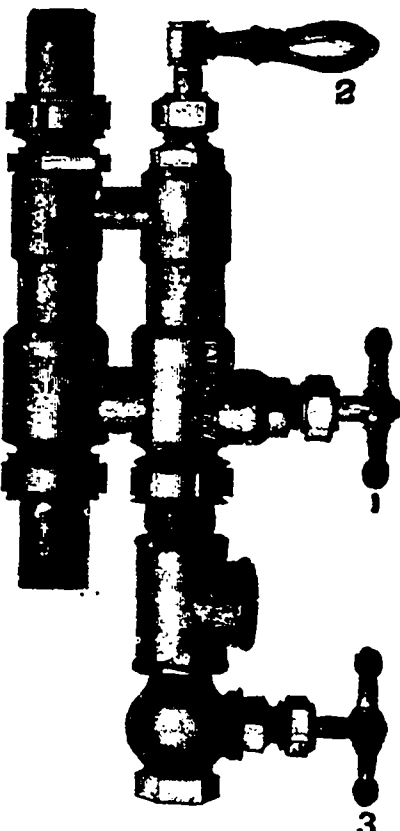
17,000 of them Now in Use!

Manufactured under license by

Stevens, Turner & Burns

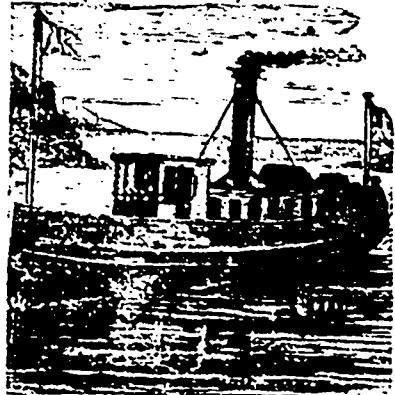
LONDON, ONTARIO.

Send for Circular and Price List.



JOHN DOTY

Esplanade Street, Toronto.



MANUFACTURER OF

MARINE ENGINES,
MARINE BOILERS,
Propeller Wheels and Steam Yachts

WITH THE TOMLINSON

(PATENT)

BARREL MACHINE

One man and two boys can turn out

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

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

JAMES TOMLINSON, Patentee,

113 KING ST. EAST, TORONTO.

Blankets, &c.

In such Quantities as may be required at CLOSE

Wholesale Prices

FOR CASH.

PETLEY & CO'Y.

GOLDEN GRIFFIN,

128 to 132, King Street East,

TORONTO.

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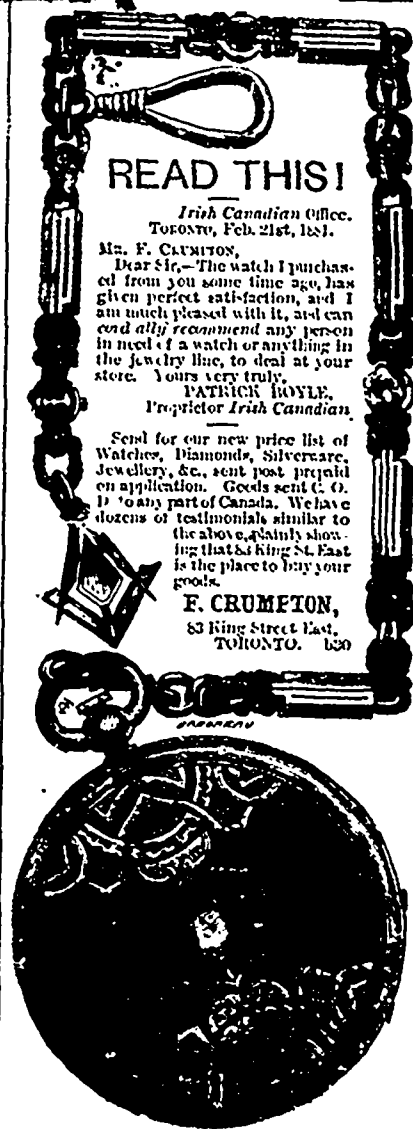
Irish Canadian Office, Toronto, Feb. 21st, 1881.

Mr. F. CRUMPTON,
Dear Sir,—The watch I purchased from you some time ago, has given perfect satisfaction, and I am much pleased with it, and can cordially recommend any person in need of a watch or anything in the jewelry line, to deal at your store. Yours very truly,

PATRICK BOYLE,
Proprietor Irish Canadian.

Send for our new price list of Watches, Diamonds, Silverware, Jewellery, &c., sent post prepaid on application. Goods sent C. O. to any part of Canada. We have dozens of testimonials similar to the above, mainly showing that King St. East is the place to buy your goods.

F. CRUMPTON,
83 King Street East,
TORONTO. 1880



M. Covel's Latest Improved Automatic Saw Sharpener!

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

**CIRCULAR SAW
STEAM FEED!**

I would also call special attention to my

Heavy Circular Saw Mills

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

GRAVENHURST, August 20th, 1880.

WM. HAMILTON, Esq., Peterborough.

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

Yours respectfully,

WILLIAM TAIT.

Lumberman, Gravenhurst.

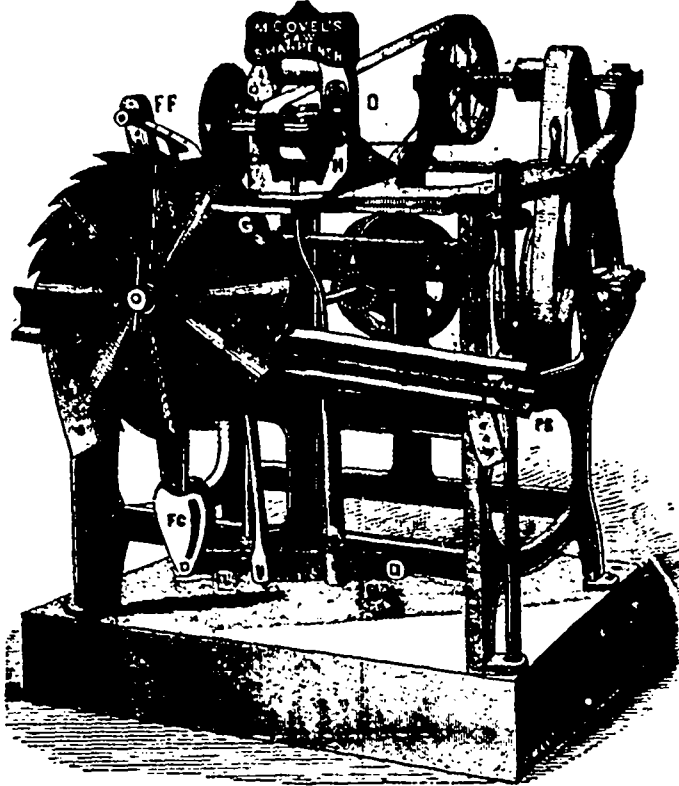
Toronto, August 11th, 1880.

WM. HAMILTON, Peterborough, Ont.

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

Yours, &c.,

THOMPSON, SMITH & SON.



MILL MACHINERY!

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

Horizontal Engines and Boilers

CORLISS



ENGINES

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

WILLIAM HAMILTON - - PETERBOROUGH, ONT.

F. E. DIXON & CO.

MANUFACTURERS OF PURE DARK TANNED

LEATHER BELTING



First Prize, Provincial Exhibition Ottawa, 1875
First Prize, Provincial Exhibition Hamilton, 1876
First Prize, Provincial Exhibition London, 1877
First Prize, Industrial Exhibition Toronto, 1879
First Prize, Industrial Exhibition Toronto, 1880
International Medal, Centennial Ex. Philadelphia, 1876



None genuine unless with a STAR on the head of rivets. Send for Price Lists and Discounts.

81 Colborne Street, Toronto

Carriage & Waggon Works

No. 17, ALICE STREET, TORONTO.

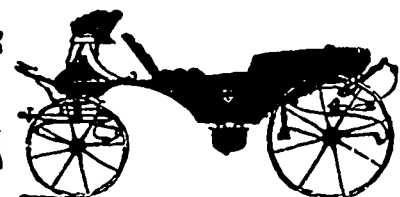
J. P. SULLIVAN,

(Successor to the late JOHN WEISTER)

MANUFACTURER

OF FIRST-CLASS

CARRIAGES



WAGGONS

AND

SLEIGHS.

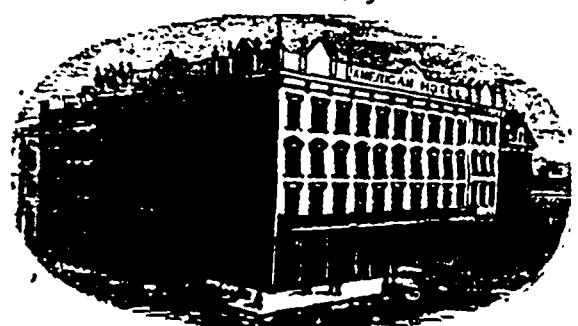
In the latest style. Superior material used in all branches. All work warranted for one year.

All Orders Promptly attended to. Special Attention paid to Repairing.

PRICES TO SUIT THE TIMES.

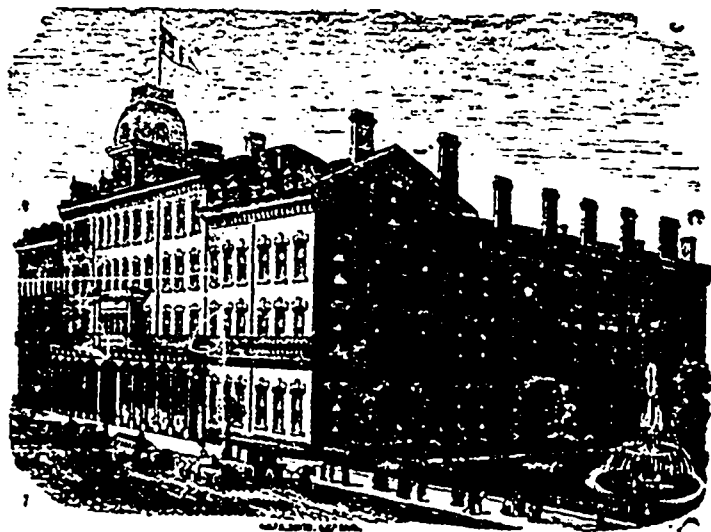
b13

American Hotel, Corner Young & Front Sts., TORONTO, ONT.



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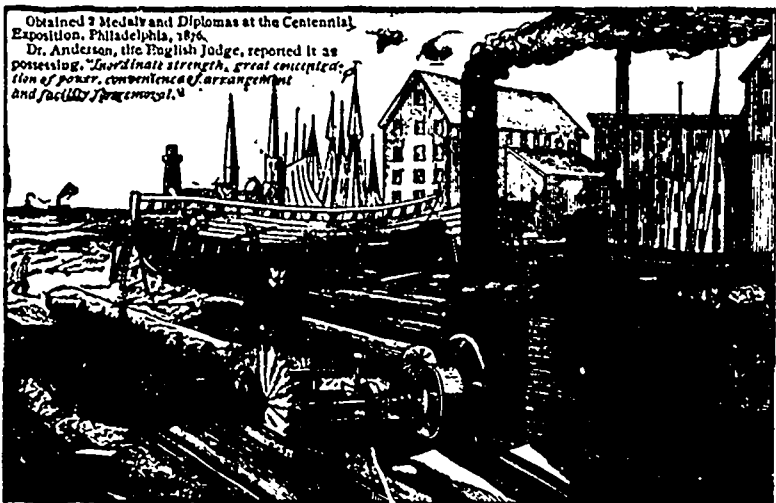


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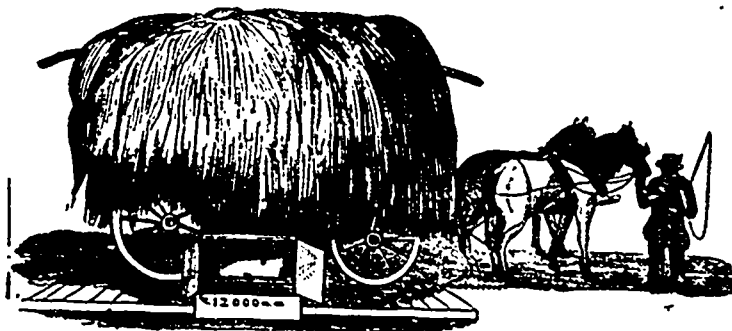
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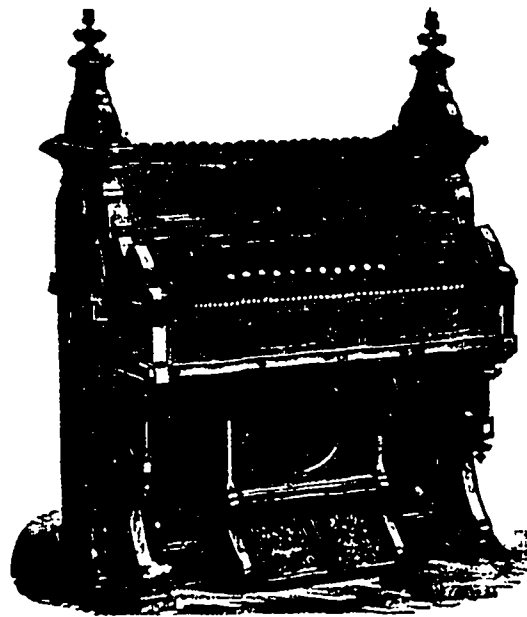
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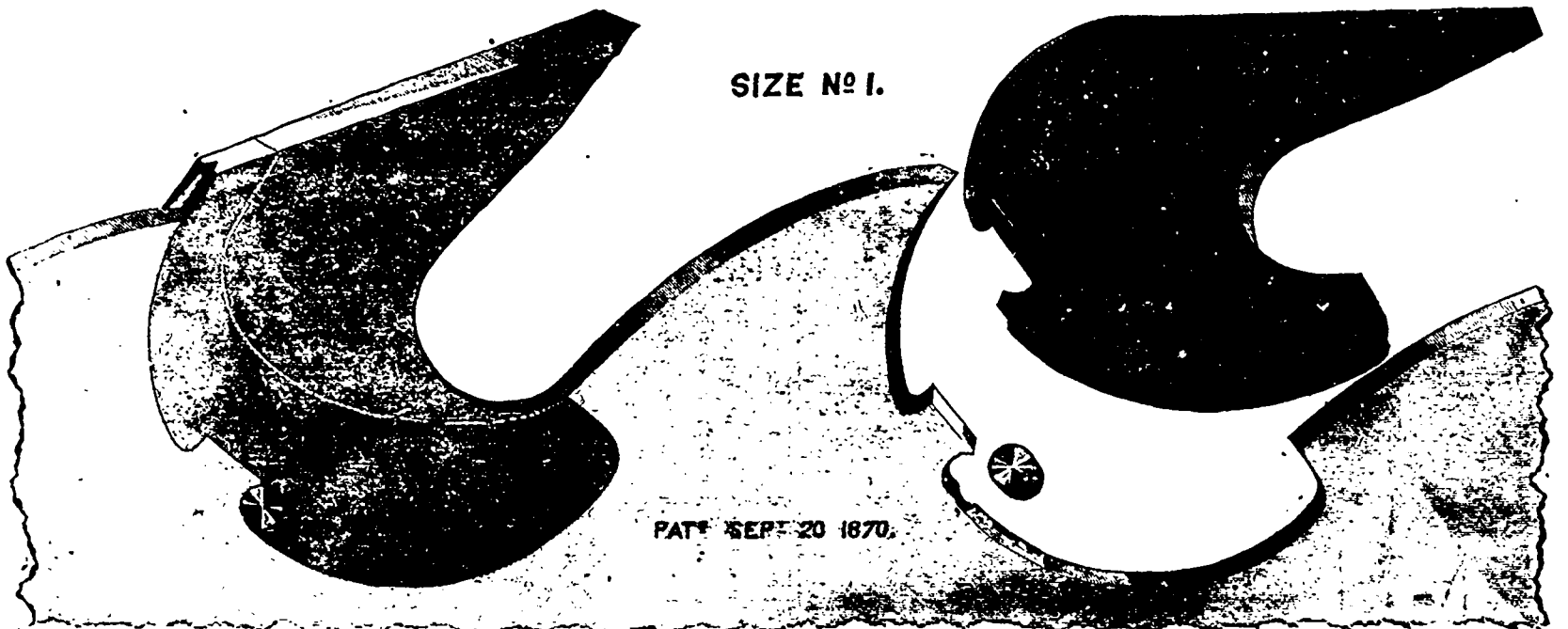
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